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WHITE PAPER

“Murder at Harvard Mobile”

www.parkmanmurder.com

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Grantee Institution: Center for Independent Documentary

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PRINCIPLES

This project was developed with several overarching principles:

- To work with and develop **open-source** technical platforms for mobile media production.
- To develop mobile content that **extends** a transmedia story (from 1991 book, to 2003 film, to this project's website and mobile productions), **rather than adapt** the original film.
- To develop historical content that would appeal to **young and old audiences** and **local and visitor populations**
- To bring **academic, non-profit, and business partners** into the live experience of the production and ongoing outreach efforts.

STATEMENT OF CHALLENGE

What are the optimal production techniques and technologies for transforming a feature-length historical documentary film into a location-based story for multimedia phones?

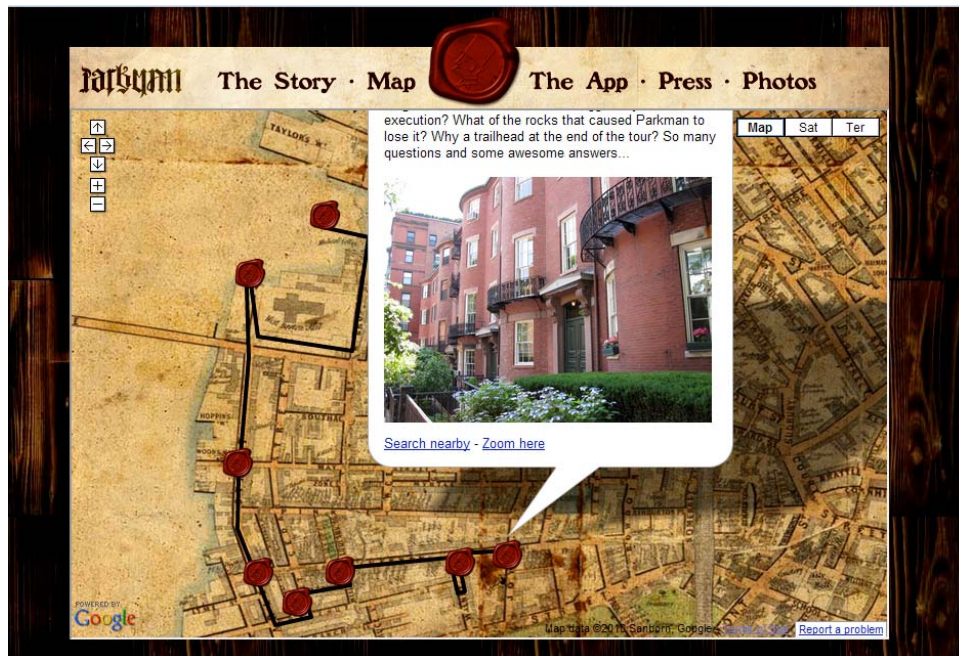
What are the potential audiences, partners, and classroom uses of this outdoor media platform?

Can we create a functional prototype with broad channels for distribution, sharing and revenue generation?

SUMMARY AND OUTCOME

This Level II Digital Humanities Start-up grant explored the potential of mobile devices as a platform for extending historical documentary films into their real-world settings. Mobile applications that combines handheld media with one's surroundings has been generally termed "mixed reality",* and are a subset of the rapidly-growing field of "location-based services." These services tend to be commercial in nature, whereas this project explores technologies, audiences, and production techniques for mobile, location-based **humanities** content. Our strategy was to work with a particular documentary film (the PBS film MURDER AT HARVARD about the 1849 disappearance of one of Boston's richest men), set in a very particular geography (the Beacon Hill neighborhood of Boston) and develop a multimedia tour that could be tested on audiences and the latest, location-aware mobile platforms.

This primary goal was accomplished and the results can be seen at www.parkmanmurder.com.



Interactive Map describing tour stops, from www.parkmanmurder.com.

* Other terms for "mixed reality" are "heads-up media", "geolocated content", "location-based" content, and, initially "augmented reality." All of these terms are more general than the specific type of mobile storytelling this project explores. The authors have termed this brand of media a "Terrative", or Terrestrial Narrative.



Media Accomplishments: On the website one can find all the all of the video content from WALKING CINEMA: MURDER ON BEACON HILL, an 8-stop, 1-mile multimedia walking tour. There are also links to download the geocoded iPhone version of the videos and a link to the video podcast of the content. Watching the video, one is struck by how this “tour” is not a digitized guidebook, but a highly participatory true crime story that physically leads audiences through an in-depth analysis of 19th century Boston culture. The media has drawn accolades from mainstream press, academics, bloggers, and festivals*. And the application is currently the most and highest rated (four out of five stars) tour application in the iTunes Store.

Production Discoveries: The process of creating the “Walking Cinema” application revealed some novel production strategies for translating humanities content to the mobile platform.

- First of all, **the geography is an essential** part of the story, and Beacon Hill’s dense mix of historic 19th century buildings, active business district, and pedestrian-friendly streets made for a highly enjoyable experience. The geography also severely confined the production’s storyline (i.e., the order of sites, the current uses of buildings, and the limits to how far audiences will walk.)
- We also found that **short, episodic video clips** (1-2 minutes) work well for devices that stream the video (faster loading times) and are well formatted for video sharing websites such as YouTube.
- We discovered a solid **“transmedia” connection** between the mobile production, the film, and the book about the subject. The mobile version references MURDER AT HARVARD, but really stands as a separate story, delving deeper into public perception of the sites mentioned in the film, the role of the press, and the psychological play between Prof. Webster and Dr. Parkman.
- The production, however, did not start from scratch. The mobile guide included **unused portions of historian interviews** from the original film. And the producers of the mobile production relied heavily on the historical **expertise of the film’s director**, Eric Stange, who greatly reduced the research necessary to make a well-balanced, accurate mobile telling of the Parkman story.

Technical Findings: Our content delivery system whereby server-based audio, video, and image assets are delivered to a light (<700Kilobyte) application through and XML schema worked well

* The project was presented at the Storytelling, Architecture, Technology, and Experience (SATE) Conference in Orlando in 2009, the 2010 True/False Film Festival in Columbia, and as a feature film at the 2010 Boston International Film Festival.

in the sense that the application downloads quickly (under 30 seconds), video can be easily edited and changed, and the system is adaptable to many different web-enabled phones. We did have some users report slow download times for the video (mostly AT&T bandwidth problems.) But overall, 90% of users reported no technical difficulties and after 2,000 downloads from the iTunes customer ratings are high and no technical difficulties were reported. While the application used open-source elements (especially in the map functionality), the current application does not meet open source standards as the iTunes store does not accept open-source software. The framework we have developed, though, can be translated to an open-source delivery mechanism, which is the subject of an Interpreting America's Historic Places grant the Center for Independent Documentary applied for in January, 2010.

Audience Discoveries: The tour was also tested on 20 users ranging in age from 6 to 70 and coming to the project in school groups, as travelers, as history buffs, and as curious locals. Below is a summary of these user tests, but overall users were highly satisfied (9.5 out of 10 star average overall experience rating), reporting to be both entertained and deeply immersed in the history being recounted. The project also got rave reviews from prominent historians, tourism experts, and academics whose evaluation letters can be found in the [appendix](#).

AUDIENCE STUDIES

In September and October, 2009 Untravel Media tested the tour on 20 diverse users. In the [appendix](#) is a copy of the post-tour survey and interview guide for the user studies. This qualitative test was designed to understand the impact of the tour's content, technology, and gather concepts for future development.

Immersive Introduction to Boston History: Of the 20 people surveyed after taking the tour the average overall enjoyment of the experience was 3.8 out of 4 stars (or 9.5 out of 10 stars.) The broad audience was most struck by how "Murder on Beacon Hill" brought the history of Boston and the Parkman murder case to life, remarking that the media was "real", "participatory", "hands-on history", "a three dimensional experience you're inhabiting."ⁱ The tour also showed great promise for a generation that is looking for compelling media to introduce them to history texts. One 20-year-old college student reported,

I'd do tours like this in a heartbeat...You're not sitting and reading a book, you're going out and doing something. Our generation...needs to have constant sensory input. and if I have to do reading [on the subject], that makes it easier because it's more relevant because I can put it to a place.ⁱⁱ

This student's professor, who leads study travel trips, reported that the format shows great promise for student trips abroad.

"History as presented through tourism is my area of expertise, and I'm familiar with various strategies for leading tours and constructing museums, and I thought...being able to integrate the two-dimensional experience on the screen with the three-dimensional experience you're inhabiting was really, really cool."ⁱⁱⁱ

Use of Archival and Hands-On Materials: Users also reported a strong affinity for the artifacts found in the tour stops. The hands-on, insider feeling of discovering those objects was memorable for many and drove the plot forward. To summarize there were 6 sets of artifacts to be found along the tour:

1. **Massachusetts General Hospital:** here the Hospital Archivist has preserved the original pilings of the Harvard Medical College building (demolished in the 19th century) where body parts believed to be that of Dr. Parkman were found in 1849, igniting the case against Harvard Professor John Webster.



Original Medical College Wood Pilings in an HVAC access area on the Massachusetts General Hospital campus.

2. **Liberty Hotel:** Enter this former jail and the tour tells you to ask the concierge for a historic board game. The game lays out the importance of moral choices and reputation at the time of the Parkman disappearance.



Audience member playing a modified version of the 1850 board game “The Checkered Game of Life,” featuring characters from the “Murder on Beacon Hill” story. The game is available at the concierge desk at the Liberty Hotel, the second stop on the tour.

3. **Black Ink Gift Shop:** this small store has a wall of ink stamps featuring hip images from old catalogs. Among these stamps were hidden several fake stamps with archival images of Parkman and Webster from periodicals of the time. The backs of the stamps were puzzle pieces that resolved to answer a riddle.



Images from characters from the story are hidden in a shop display and combine to answer a riddle.

4. **Blackstone's of Beacon Hill:** this well-known shop houses a “Pop-Up Book of Evil Architecture”, which is a whimsical representation of the “Mysteries of the City Genre” of fiction that was popular at the time of the trial. This type of mystery story often featured architectural structures that hid evil deeds from the public eye, similar to the portrayal of the Harvard Medical College in the trial.



Pop-up book explains how the Mysteries of the City genre framed the discussion of the Medical College in the trial.

5. **Harvard Musical Association:** this 175-year-old music appreciation club displayed a soliloquy about the case and a copy of John Webster's member card in their window.



The private musical club posted recreations of Webster's membership card and an 1849 soliloquy pleading for Webster's confession

6. **Appalachian Mountain Club:** this outdoor club arose a generation after the case, relying heavily on donations from the dead man’s son, George Parkman, Jr. The club is open to the public and mixed in with patches for various hiking destinations are fake patches, commemorating Webster’s foolish endeavors in nature that led to his conflicts with Parkman and eventual death. These endeavors are explained in more detail in a log book hidden in a drawer.



Patches on the wall of the Appalachian Mountain Club describe hikes and Webster's folly. A log book explains more and allows audiences to leave notes and thoughts.

Users reported that they especially enjoyed these objects because they were, first and foremost entertaining: “I was playing a game and learning at the same time” and “you are physically discovering questions and answers.”^{iv} They also reported that the objects themselves were well made “and so impressive.”^v

This combination of physical and handheld media is fairly new, but tied to the more established practices of gaming communities, especially those known as Alternate Reality Games (ARGs). These games are created by individuals and marketing companies (e.g., 42 Entertainment and Campfire) and present audiences with a series of puzzles both online and as objects in the real world. Working through these puzzles audiences earn prizes and unravel a narrative.

The use of archival materials (or recreations) from historic archives was an interesting twist on this practice, leading lay audiences to interact with media that is normally the domain of academics. In the future, more work could be done to bring out the connection between the tours and the archival sources of the objects, such as links to online archives, tours that actually go into archives, and the ability to send audience findings and feedback to archivists.

It should also be noted that these materials made many of the users feel more comfortable walking into semi-private spaces such as the Hospital campus, the Liberty Hotel, and the various shops. One 20-year-old student notes that at the hotel and historic sites “I would never just open the door and walk in. But when you get objects from the concierge or shop owner, you feel like you belong there.”^{vi} This ability to bring audiences, especially those that don’t normally explore history, into historic sites and inspire them to investigate further is a major finding of this mobile media experiment.

History for Those Who Aren’t Into History: From our small sample audience (20 people), we made sure to include users who don’t normally use audio guides in museums (70%) and those that don’t usually read about or explore historical sites (50%). Several users reported “feeling

transported to another time period,” “enjoying history more than I ever did in class,” and “by following this crime story, you’re learning about the history of the neighborhood.”^{vii} The immersive qualities of the tour also made history feel like an insider experience: “I was looking around at other people and feeling kind of privileged to be hearing this story that no one else knew happened right there.”^{viii} Thus, non-history-oriented audiences were drawn to the way the multimedia tour made them rise above a normal pedestrian experience.

They were also enthusiastic about the quick pacing, young voicing, and relaxed feeling the tour gave them. “A walking tour ...can be boring and lame, but this kicks it up a notch. It was a nice combination—learning about your surroundings and putting it in context. Instead of just seeing another rich person’s house, there was a murder that happened over there.”^{ix} Several users noted that they liked that the tour could be paused and you could go to lunch or buy something along the way. Rather than a 1-2 hour lesson, it was a stroll “at your pace.” Thus, for these non-history-seeking younger audiences, the mobile application is like a Trojan Horse: approachable as a fun, novel experience, but leading to the deep well of historical inquiry.

Broad Age Range: Many users reported that the core of the experience--a classic true crime story--could appeal to a wide range of ages, even as an activity that bridges generations:

“definitely could range from teenage, I think my grandparents may even like it. I would definitely do it with my parents...my dad’s into history, he loves the History Channel, it’s like this kind of like show, multimedia lesson, you get through watching and listening, and this is like walking in and getting to play with games and stuff.”^x

Echoing this sentiment one advisor to the project commented:

I know you were aiming at the 18-30 demographic, but I think you’re selling yourself short there. In a way you’re trying to combine a technology with which youth are comfortable with an experience – cultural tourism – that tends to be dominated by Boomers, my age group. However, most of us are not technophobes, your platform is very user-friendly, the directions are clear and not intimidating, and the program is easy to download. To the contrary, the technology offers perspectives and insights that most travelers just won’t get with the typical museum exhibit or even walking tour. So, as much as I appreciate any format that brings the humanities to young people, I’d encourage you to think about a broader target audience.^{xi}

So while the tour was designed to appeal to younger audiences, there also seems to be an older market for such experiences. This audience is actually more likely to have the money for the expensive multimedia phones and data plans required to run the application and may actually be more inclined towards such as WALKING CINEMA: MURDER ON BEACON HILL.

Issues with the Tour: Several users cited gaps in the storyline such as characters and facts that were mentioned but never explained properly. Also, while the media is only 43 minutes long, the entire experience can take up to two hours and that wears on some people. And while users liked going into places, a couple of stops were uncomfortable because users felt like they were in the way in cramped spaces or that they were being rude by walking into a place of business with headphones on. One user suggested the use of a single Bluetooth earpiece to listen to the tour, thus opening you up to your surroundings. Finally, there seemed to be a few glitches with the video taking too long to download or not arriving at all on some devices, especially at high traffic times. This will be addressed by a version of the tour in which the videos are downloaded with the application.

MOBILE STORYTELLING PROCESS

It should be noted that this successful translation of the film into a walkable mobile media format, didn't come easily. The following steps summarize how the production was made:

1. **Immersion in the Environment (2 months intensive and throughout project):** The production team walked the neighborhood with historians and the original filmmakers to places that tie into the Parkman story. The team used Google Maps to mark these potential places and begin outlining the scenes that would unfold at each stop.
2. **Rough Cut including Practice Installations (months 3-4):** The project director, Michael Epstein, then scripted 3 stops and produced audio tracks that could be listened to through a dial in service on cell phones or downloaded to iPods. At these stops we developed small test installations of historic objects and tried out various narration approaches (a librarian obsessed with the case mellowed into the spooky, PBS fan we ended up with.) Community hosts for the stops were approached and asked to participate. This process of getting places of business and historic sites on board was facilitated by this functional prototype. In the end, 6 out of 8 places of business approached agreed to host objects and help tour goers experience the story (even though the precise role was undefined.) Epstein then began to refine the script, working closely with Spy Pond Production's Eric Stange (who directed MURDER AT HARVARD on which this project was based) to work out the flow of the story over this challenging geography. One of the most important suggestions Eric had was to forget the film and focus initially on the story the sites and built environment could tell.
3. **Fine Cut of 5 stops (months 5-6):** this was an early video version of the tour played back on video iPods and tested on 5 guinea pigs from the general public. The test illuminated some essential limitations as to how far people are willing to walk and what themes audiences were interested in. At this point, the production team decided to run the tour from MGH to Appalachian Mountain club (not vice-versa) and to make the story progress mostly chronologically (from discovery of the bones to arrest to trial to requests for clemency to hanging.) Users provided feedback on the effectiveness of animation techniques and the narrator's voice. This version ended up using quite a bit of footage from the original film, resurrecting portions of the interviews that never made it out of the editing room floor. The mobile story expanded on ideas that were only hinted at in the film, such as the strong personal bond between Parkman and Webster and the changes in the urban fabric of mid-19th century Boston.
4. **Semi-Final Cut for testing on iPhone (month 6):** A semi-final cut of all 8 stops was tested on 6 subjects and problems with directions, minor plot inconsistencies, and streaming video were corrected. The application was then submitted to Apple for approval and the website was released with previews of the video and forthcoming application. Final installations of historic artifacts were made in the shops and historic sites along the walking path.
5. **Final Cut released on iPhone (month 7):** The application was approved by Apple in October, 2009 and released to the public as WALKING CINEMA: MURDER ON BEACON HILL. A Wi-fi landing page in the Liberty Hotel provides a link to download the tour. The local and national newspapers and blogs ran stories on the project.

Repeating this process for different locales and different films would be easier after this experience, but far from simple. There is a significant amount of expertise on the built and natural environment of a story path required to create a powerful mobile story. And as with any long-form media production, the story refinement, visual production, and editing takes at least several months. This process thus bodes well for collaborations between filmmakers and historians. Below you will find a summary of aspects of this project that merit further technical and storytelling development.

CONTINUATION OF THE PROJECT

The developers of the project have applied for an Interpreting America's Historic Places Grant in January, 2010 to build this technology and narrative approach into a national project, with a 2-year timeline, broad marketing efforts, and focusing on how cities recover from disasters.

The project director, Michael Epstein, is also currently teaching location-based video development in after school programs in partnership with [Boston After School and Beyond](#), [Common Boston](#), and several prominent youth centers. The first wave of student projects will be released in a city-wide festival in June, 2010.

The project is also continually running as a tour free to the public (charges may apply in the future.) The various partner organizations continue to house artifacts along the tour route and visitors to the project website and the Apple App Store continue to download and take the tour. So far downloads have been reported from 30 different countries (see audience figures below.)

From audience studies several future features and concepts remain to be developed, that show promise in this area of development.

Gaming the Story: Audiences were asked what further interactive features they would like to see, especially those that might make the tour more like a game with challenges and awards for “solving the crime” and finding additional information. Some younger audiences noted that they were hungry for more evidence from Webster’s trial. Thus, it might be interesting think about the tour as an evidence-gathering mission that feed content into an online game. The game could be played before or after, possibly putting audiences in the role of the jury. While this would add interactivity to the experience and possibly attract larger audiences, some users might find it a “hokey” approach to a fascinating story. One 65-year-old audience member thought, “It seems like it’s making it too silly. I’m never really into interactive gimmicks. You know something, I want to hear it, so tell me! I don’t need to have any input, I just want to receive it.”^{xii} This point-of-view is not commonly considered when designing digital media, but may be important, especially if the media is targeting older, more culturally attuned mobile device audiences. Creating an optional gaming experience around a tour merits further exploration, especially if it helps motivate and sustain the audience’s own curiosity about the details of the case and clues found along the walking path.

Photography: Audiences were asked if they would like to be able to take pictures and share them with friends and other audience members during and after tour. This was unanimously a popular idea, especially if photos could be rated, filtered, and provide additional information that’s not given in the tour (i.e., a plaque for Parkman on a side street where the tour doesn’t go or other sites on the MGH campus where you can find Parkman artifacts.) Users were especially enamored with the idea of being able to take pictures in tour and have the application superimpose images of the characters from the story on your photos taken in tour. This layering

of tour characters on photographs is a popular element of some iPhone applications such as “The Hidden Park” and could be a great way to generate awareness of a tour and historic sites.

Social networking and online continuation: Audiences gave more mixed reviews about the concept of being able to communicate with other tour takers, especially strangers who happen to be taking the tour at the same time as you. About 70% of users tested thought having a digital bulletin board of user comments and hints would be great to be able to access during and after the tour. About half those tested thought it would be appealing to be able to see on the map where other tour takers were at the time, but wanted to make sure you could hide your location if you chose to. This possibility of meeting others in tour seems most appropriate for school groups and event goers.

Better coordination with historic sites: In future work, more could be done with the artifacts housed along the tour and involvement of historic and commercial site employees. Audiences they were especially struck and happy with any help and interactions they had with shop and historic site employees. Such interactions could become more common if partners felt they had more of a stake in the creation of the tour and in the rewards (monetary or publicity.) It also seems that installations may become much more elaborate, involving access to hidden spaces, special gifts, and interaction with more elaborate historical props.

Overall, the interactivity and socializing aspects of WALKING CINEMA: MURDER ON BEACON HILL could greatly expand. Capable and engaged audiences are becoming powerful agents of distributed storytelling and learning. Multimedia tours could become wonderful leaping off points for this kind of engagement.

TECHNICAL ACCOMPLISHMENTS AND VARIATIONS

The project did not initially call for an iPhone application, but this format was chosen as a future-facing method to build historical narratives for location-aware devices. The ability to integrate videos with maps and distribute content globally is currently unparalleled on other mobile platforms and so the iPhone became a great way to test the potential of WALKING CINEMA. As proposed initially, the tour was made accessible to other devices via the podcast (MP4 video format) and the website streaming videos (any computer with an Internet connection.)

The use of GPS in delivering the content was rated positively by over 90% of users tested, finding that the map accurately showed you where you were and made the story path much easier to follow. The overall structure of the media, being stored on a server and streamed via XML guidelines to the application is the precise method initially proposed. The production software being developed by Untravel Media is still not ready for commercial use, but this proof of concept makes its foundation much stronger.

CURRENT USAGE STATISTICS

As mentioned previously, the project was released as a free iPhone application, a website and iTunes podcast. As of March 10, 2010 the following audience had participated in the project:

Number of iPhone application downloads (20 weeks)	2,000
Number of Podcast Downloads (16 weeks)	22,000
Number of video website unique visitors (16 weeks)	2,800
Number of video views on Facebook, Twitter, and Vimeo (16 weeks)	10,000
Number of photo views on Flickr (6 weeks)	100
Number of "Murder on Beacon Hill" Google Maps views (6 months)	6,429
Estimated Audience Size (16 weeks after release)	30,000

As the above table shows, "Murder on Beacon Hill" was a good opportunity to test various channels for distributing the story to both mobile (iPhone, Podcasting) and desktop players (YouTube, Vimeo, Project Website.) We found that placing the stop descriptions and images from the tour on a publicly-shared Google Map was a very effective way to generate awareness of the project. We also found that while application download numbers were not tremendous, there were over 30 different countries downloading--from Japan to Romania. Thus many iPhone users are excited to use the application as a view into the environments they aren't visiting in person.

APPENDIX I: PROJECT ADVISOR FEEDBACK

Name: Prof. John Stilgoe

Position: Robert and Lois Orchard Professor in the History of Landscape, Harvard University

November 5, 2009

Dear Mr. Epstein:

I have carefully examined all of the material you have provided. I applaud your successful efforts to create an original, evocative, and eminently sensible portal into the past and into the contemporary urban landscape.

The work captures the thread of the murder story perfectly, but far more importantly, it evokes the contemporaneous mood of the city and its people with a contemporary urban-landscape framework. The visuals are accurate and acutely positioned within the larger narrative, and the narrative itself is cogently and frequently gracefully presented. The voiceovers are especially well done: the narrators speak exceptionally clearly. I am especially impressed with the even, quite rapid pace of the video sequences.

The entire project creates layers of visual meaning: I find the video of people on the sidewalk watching television video of the original-material video especially effective in fixing the user's attention on the history-as-jazz motif. Such images-within-images technique entrances as it explains. The moving magnifying glass image seems equally effective. Moreover, the occasional use of actors (especially the one playing the Governor) adds much vitality to the overall narrative.

Switching among several different versions of the base map is also a sound way of juxtaposing the past and the present, and fusing them into a new, distinct reality in the user's mind.

I have few suggestions for improvement, but here note that the video segment "Blackstone's" appears to have an intermittent technical glitch some sixty-five seconds after its beginning. Also, it might be useful to have one or two short sequences of women and children in period attire to enlarge the range of personification (I think the period illustrations of newsboys will prompt that desire in viewers).

I have taught courses on the history of the landscape here in the Department of Visual and Environmental Studies for some thirty-five years now and have rarely encountered ANY product with the sophisticated nuance of yours. I congratulate you and wish you the very best of success.

John R. Stilgoe

Robert & Lois Orchard Professor in the History of Landscape Harvard University

24 Quincy Street

Cambridge, Massachusetts 02138 USA

Name: Prof. Ronald Story

Position: Professor Emeritus of History, University of Massachusetts at Amherst

Dear Michael and Eric,

I'm astonished at how good this is. I'm not sure what I really expected; I had no expectations, I guess. But I never thought I'd see anything this interesting or polished. Your use of structures and artifacts make the story of the murder and trial come alive even more, if that's possible, than in the PBS documentary.

There's a real sense of place and participation that I've never seen before.

Here are a few things I thought worked especially well:

-- Of the voices, Parkman Shaw is wonderful, sounding still close to his clan and therefore able to make cogent observations on, for instance, in-group murder/suicide and the city of Boston grown suddenly out of control. (The other talking heads are pretty good, too.) Shama's comments from the documentary work fine, even though we don't know who exactly he is--no need to ID him, probably, partly because he doesn't speak that often.

-- Visually, the blending of primary sketches with clips from the documentary and views of how the places of the story appear in modern-day Boston. The fast cutting works well. The viewer/listener doesn't much notice the shifts in material, at least after the first time or two.

-- The historical contextualizing is first-rate, never dull or "history-lecturing," well tied to the details of the places and the episodes. As a professional historian who has written about 19th century Boston and Harvard, I'm always tempted to demand more and more context--early manufacturing, immigration, religion, sectional crisis, and so forth. I do have a couple of small suggestions for context additions, but you've blessedly followed your own nose, not mine. The references to social tensions, street violence, and class suspicions and conflict are very helpful. I do not think you have tried to do too much, by the way. Given how this story will unfold on a person's ipod, there will be plenty of time to consider and assimilate the ideas and impressions in the videos, which in any case hang together pretty well.

-- You ferret out many delightful slivers of the material culture of mid-19th century Boston, all thoroughly tied to this event. This may be your most important contribution--encouraging and helping people to see the history that remains in the environment around them by examining--tracing--a particular historical drama. Looking through the clips, I kept thinking of other places that might work almost as well as Boston. (There are lots.)

As for suggestions for change, I do have a couple. So anatomy was the main discipline for surgeons--for which cadavers were crucial. In most places students had to give the medical school a cadaver to be admitted.

-- I've never been a fan of the "This American Life" mode of narration that's used here: flat, little inflection, hardly any drama in the voice. Can't be changed now, I know, and I'm sure you made a deliberate decision about this.

But at least turn the volume up. In quite a few places the narrator is very difficult to understand, partly because she sounds so bored she fades out, but mainly because she isn't loud enough.

-- You could say a little more, contextually speaking, about cadavers. Fast cutting was the hallmark of great surgeons because they could finish before the patient died of shock. So anatomy was the doctor's main discipline, and cadavers their main need. And bodies rotted in the heat quickly. Students had to present a cadaver to be admitted to most medical schools. In this sense Webster's work was more important to medicine than Holmes's, and he knew it--another status problem.

-- Regarding Parkman, I thought the reason for his "frustration" with his career wasn't clear. Add something to make this work better? You could also mak the point, which everyone would get, I think, that Parkman was basically a grasping miserly type--like Ebenezer Scrooge and Silas Marner from the same era. Frustration and miserliness aren't mutually exclusive, of course. As presented in the videos, I thought the frustration motivation was weak. Miserly comparisons might help. Also, Parkman's loan isn't very well described. It's mentioned early on, but you really have to be listening carefully to get it, and even when it recurs near the end it's somewhat vague until the very end. Could we do better on this?

-- The \$3,000 reward was more than most workers would make in years (don't say "lifetime"). It might have been \$200K, as Schama says. It was also almost exactly the annual salary of a Harvard professor, which is a nice point to throw in.

-- I didn't quite get how Webster's office changed from "fortress" to "lair". It's so dramatic a statement, though, that you should probably leave it even if it doesn't make much sense.

I doubt any of this helps very much. But this is so enjoyable and so solid, it doesn't really need help.

Feel free to contact me.

Ron Story

Name: Professor Edward Barrett

Position: Senior Lecturer, Department of Writing and Humanistic Studies, MIT

Michael--I've looked at all of the clips. I'm really impressed with the changes you have made in approach. The quality of the video clips is quite remarkable: clarity of image, voice-over, music, the mix of video and stills. I may have missed this, but I'm not sure who the character of the narrator-guide is supposed to be (if anyone); i.e., what relationship does she have to the material (assuming you want to keep it seamless)? In that regard, I found the various stopovers in contemporary shops with references to little shrines or such that "she" constructed something of a break in the narrative. But this is testament to the strength of that narrative you've constructed; I didn't want to have my historical, imaginative internalized story disrupted (when "she" cries out when we're instructed to open the board game box, for example). But I sort of missed the narrative hook that allowed such disruptions (well, of course, it's a tour of a contemporary site!)

A general, diffuse, comment: the narrative (spoken script, video, still image) really did pull me in to the "scene of the crime" and what may have motivated it. In some sense, your "tour" is a "police procedural" (think CSI and its multitudinous ripoffs). We're not only following in the geographic steps of these folks; we're also trying to establish the why, the how, and perhaps the larger question of why: to get deeper insight into a time and place and a particular event (yes); to solve something (yes--but not the crime; rather, the "idea" of Boston); to arrive at a deeper understanding of...and yes to that as well, although what I was understanding remained particular--the crime, etc.--and larger: the weirdness of any crime but also the weird history of Boston, its many configurations in a variety of media: books, films, oral lore (pop culture). Balancing those two narratives is difficult--I think you've got a handle on it. But at any moment in the tour it can break apart: real-time distractions; lack of interest in the audience (may skip ahead), etc.

As for suggestions regarding cuts: some of the repetitions (the video fly-over of the abstract city plan, resolving nicely to a building front) establish context. The videos move between these establishing shots and a sort of Ken Burnsian still photo moment to the right-now (climb down these stairs; pass this desk and lady, etc.). I didn't have a problem moving among these different rhetorics (for lack of a better term), but I'd be interested to hear how users will react to this disruption of the narrative "fiction," the feel we develop for main characters. And what is the character of the viewer/user? How am I invested in it?

SUGGESTIONS FOR IMPROVEMENT

What I notice most strongly reading the script through, as opposed to hearing it on video, is its prosiness. It reads like a piece of writing--if that makes sense to you--rather than a "script" for voicing: Complete sentences; third person pronouns when a noun would be better. I don't know how I missed this before. In other words, as I was reading the script I was wondering how a more experimental style of writing might work, especially with your target audience of 18-30. For the low end of that range the script moves kind of slow; for the upper end, the voice feels too artificial and not necessarily authoritative enough, the evocative objects in the tour not necessarily compelling.

Story arc: it does evolve, probably because you drop the "spooky" (your term) stuff at the beginning and come to rest--with some interruptions--on the "PBS" (your term) style. I do have an issue with the character of the narrator: bringing in jazz at the start? Who is she? How does she know so much? Why is she talking to us? That conceit of the narrative feels a little shaky. We kind of learned a long time ago that narrators are not necessarily authoritative, and often are unreliable. But this staple of storytelling doesn't get much play here.

Technology: I forget if you mention this in your description of the project, but it might be interesting to see how players might interact with each other, either in real time or over saved tours. I guess I use the term "player" in two senses: 1) the person on the tour as a dramatic

persona (what persona I don't know); this aspect could be fruitful for future iterations--can I become a character in the story? You tend to lead us through a set plot with set moments of interaction (go here, pick up that), but what if I was asked to choose to be a character from the crime story? What would I do or look at or interact with if I were a Harvardian Brahmin, some other class, or a detective?

And 2) player as in person playing a handheld game. This, too, is a fruitful area for investigation next go-round. If it's a detective story, why not ask--challenge!--me to solve it? Why give away the real ending? Why not alternative explanations? Btw, I don't know how visible the screen is in direct sunlight, nor how distinct the audio is in use--was this an issue in your trials? Is there a way for participants to add tags, photos, texts to the accruing narrative for others to view/compete with? Right now I'm kind of passive except for actually walking, my engagement is to see how it turns out, as well as learning something about locales. Maybe my patience for narrative has become defective! But if I carry something like an iPhone or similar contrivance I check it constantly for something new or diverting, trivial or not. No attention span when it comes to digital media! So I'd like to have more research into artifacts and have more objects presented to me just to keep me entertained. I'd like to see more interaction with the device, with the locale, with the stories. For the next iteration, I'd like to choose who to be in the crime story. I think that relates to the NEH mandate about improving digital books, etc. Right now, digital publication seems to mean text, audio, video and some minimal annotation. But that's just aggregation, not synthesis.

Games--and I am NOT a gamer--get huge audiences because of interaction as well as compelling if silly plots, and hyped-up visuals. I think that's your real competition here, not PBS, or books. What's the new narrative, is a question I think you're investigating here, and I'd like to see the next iteration be a bit more radical in experimentation and implementation.

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Name: Dan Shilling, PhD

Position: Founder of civictourism.org and Former Executive Director of the Arizona Humanities Council

October 29, 2009

Dear Michael:

Thank you for sending the final cut of Untravel's "Murder at Harvard" iPhone application. I know it's been a long road for you, but the final product is fantastic. I just finished watching all 25 segments for the second time, and I want to send a few comments while the experience is still fresh. I hope you'll find my notes helpful as you move forward. The entire time I was watching the Webster-Parkman story I kept thinking about similar narratives that could be told every place – large cities, small towns, rural locations. And, of course, they need not be murder mysteries – just chapters of local history that are pedestrian-friendly, provide social context in a new and interesting way, and draw the viewer in. You've done a great job with all of that in this program.

Let me begin with the viewer. I know you said in Untravel's planning that you were aiming at the 18-30 demographic, but I think you're selling yourself short there. In a way you're trying to combine a technology with which youth are comfortable with an experience – cultural tourism – that tends to be dominated by Boomers, my age group. However, most of us are not technophobes, your platform is very user-friendly, the directions are clear and not intimidating, and the program is easy to download. I'm certainly beyond your 30-year-old age limit, and I was captivated by the story and did not find the technology a barrier. To the contrary, the technology offers perspectives and insights that most travelers just won't get with the typical museum exhibit or even walking tour. So, as much as I appreciate any format that brings the humanities to young people, I'd encourage you to think about a broader target audience. You don't have to do anything with "Murder at Harvard" to reach and educate Boomers or other older viewers; the demographic issue at this point is more of a marketing concern.

I realize you're using the iPhone platform, which is going to limit the potential number of viewers, but it's probably the best place to start. The technology will come around and we'll all adapt. For now, if there were a way to rent iPhones through libraries, museums, tourism bureaus, or other local institutions, that might address the delivery problem, at least temporarily. One of my first thoughts, in fact, was: Beyond tourism offices, how can you reach cultural and educational organizations, including schools? When I was with the Arizona Humanities Council, we helped fund the Arizona Heritage Project, whose mission was to put high school students in the community to *do* and experience local history. It's hard to think of a strategy that would be better at doing that than the one employed by "Murder at Harvard." Further, I'm sure a lot of students today would be savvy enough to create their own versions – something to think about (study guides, lesson plans, classroom activities).

Your other viewer, of course, is the tourist, the person who's in Boston for a few days and wants to learn some of its fascinating history. As you know, I've been doing quite a bit of research on and programming for cultural and experiential tourists, and this project would be excellent for that segment of the traveling public. It's educational but doesn't talk over the audience's head; it's certainly a quality presentation, not shoddy or amateurish; and it tells an interesting story. "Narrative," we know, is one of the things that interests travelers; you've taken that principle and turned it into an entire "tourist attraction." The challenge, again, will be with public relations. Can you work with the city's convention and visitors bureau, chamber of commerce, hotel associations, and other groups to let tourists know about the service? For example, will the local CVB or state tourism office provide Untravel space on their websites to reach visitors before they come? Your own website is first-rate, easy to navigate, and offers the viewer a satisfying introduction to the program. It's crucial that you also link to other regional travel sites.

Let me make a few observations about the content and production. First, I'm not a historian of New England or this particular story, so I can't vouch for the accuracy of the history. I assume the humanities scholars involved have checked the facts. From a storyteller's perspective, though, you've done an excellent job of shaping the narrative, making a macabre tale enjoyable, and providing helpful and interesting social context. Part of the attraction is that, while more than 150 years old, the story remains relevant: it's universal on many levels, and it certainly connects to today's media-driven celebrity culture. Another effective narrative strategy is teasing out the story's chapters so the viewer remains captivated throughout. Occasionally I'd ask "why" the narrator said something, only to discover the answer later (for example, she drops a hint at one point that Parkman was "obsessed" with Webster but doesn't say why). The story builds like a mystery, which makes sense, given that it's a "touristic whodunit" of sorts, pulling the viewer into the tale.

The narrator's directions to the viewer ("come with me," "look down there," etc.) help to foster that participatory nature. In case you haven't guessed, I very much liked Alexandra's McDougall's narration; she is personable, engaging, and, at times, fun. You want to follow her. The scholars who appear from time to time are also used well – just enough historical context to situate viewers without inundating them with details. The brevity of the segments is one of their better qualities; as much as I appreciate authenticity, I'd hate to see you try to tell Simon Schama's whole book – or simply recreate Eric Strange's video for an iPhone application. You've crammed enough (a lot, actually) into this without making it feel like the list of facts and dates we often encounter in textbooks. Overall, from a historical perspective, I very much appreciate the variety of cultural contexts – music, the role of the media, medicine, poverty, literature, urban development, and politics, among others. I now know a lot more about Boston's history in the mid 19th century, and I'd wager I'll remember a lot of that information for some time – another result of the participation element.

In terms of production, the way the program transitions between contemporary buildings, historical drawings and documents, talking heads, and maps is extremely well-done. One thing we say about cultural tourists is that they want a quality product, and you've delivered on that account. My criticism is that some of the fast-forward shots are just too jumpy, and thus disorienting. It also seems in places that the sound level is not consistent from segment to segment, so you may want to check that. In general, though, I am impressed with the production quality – graphics, sound, music, and the way Alexandra creates a personal journey that invites the viewer to join her. It's almost hands-on learning, a tactic many museums and other interpretive sites incorporate.

I don't know what to say about the problem of linearity. That is, do the segments work as stand-alone stories? I think not. First, they're usually too short and you simply can't frontload every segment with context. If people want to start at a point other than #1, I guess the only solution is to tell them to first watch the parts leading up to their beginning point; at least they'll have the background. But, to be honest, I don't think linearity is much of an issue; anyone who takes the time to download the story is probably committed enough to begin at the beginning, which is not difficult, given Boston's compactness. Having said that, I think the location chapters can more or less stand alone; for example, the five segments at Blackstone work as a small chapter of the story. That at least would allow people to complete the entire tour without doing it all at once – or even sequentially.

I was a little concerned about the topicality of a few scenes. For example, Alexandra refers to "Mark and Jennifer" in the store, and tells the viewer to seek them out. With the store names, streets, and other geographic locations I'm not too worried; many of them have been there for decades and are not about to change soon. But the "Mark and Jennifer" reference jumped out at me. What happens if one of them leaves? Why date the program that way? Or is it easy for you to change for future downloads? I understand the strategy, to make the tour welcoming and even personal, but having the two of them in the picture seemed to do that by itself. A small nit-pick.

As a tourism and educational delivery system, Michael, I think you are onto something. I'll be mentioning this in some of my upcoming civic tourism presentations. It's the kind of personal, direct, experiential program a lot of us talk about. Also, when I think about this format from the civic tourism perspective, I see potential. You know that one of our principles is to involve local residents in the development and articulation of tourism programs. Well, this format is ideal: First, the people who live in and care about their place can help create the story and its "map." Second, if you're going to direct tourists around town, visiting local sites, you'll want the community's consent to be a "tourist attraction." Finally, these interactions go beyond the commodity relationship that often exists between tourism sites and visitors – they become mediators of experience, helping to preserve and enhance the story, as opposed to what mass tourism can do.

I'd love to see this nationwide, where associations of tourism bureaus and historical societies, for example, work together to celebrate their stories. I thought about my own street, near the location where Winnie Ruth Judd (the "Trunk Murderess") supposedly did her deed in 1931, which became a national media sensation. The house is still there, as are the hospital where she worked, city hall where she was tried, and the asylum where she was held. Or think about our National Parks; they are not just pretty mountains and rivers, there are amazing stories there to tell. (I'm off to the Grand Canyon this week; an Untravel program about Glenn and Bessie Hyde would be amazing. Google them if you don't know the story.) As you know, I work with tourism programs throughout the country, and I can envision this tool in most places. But I also see it going beyond tourists – to schools, museums, and other organizations that preserve and tell local history. Certainly, your target audiences may shift, technology will continue to evolve, and you'll adapt to all of these changes, but you've got a great approach here – one that privileges the "story": the city's, the narrator's, the viewer's. One thing to work on now is marketing the idea.

Thanks again for inviting me to participate. I had no idea when I signed on that your project would be so stimulating. NEH will be pleased, I hope, that they've helped to kick-start a new interpretive approach.

Sincerely,

Dan Shilling, PhD
2201 N. Central Ave. #7E
Phoenix, AZ 85004

APPENDIX II: AUDIENCE SURVEY AND INTERVIEW GUIDE

“WALKING CINEMA: MURDER ON BEACON HILL” MOBILE TOUR

Thank you so much for volunteering to be part of the beta testing for Murder in Beacon Hill! During this survey, we are interested in your honest feedback. All the information you provide will be kept confidential.

1. Please rate your overall experience.



2. Which segments did you listen to?

	Entirely	Partially	Didn't listen
0. Introduction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1. Mass. General Hospital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Liberty Hotel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Black Ink	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Blackstone's of Beacon Hill	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Harvard Musical Association	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Acorn Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Parkman's House	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Appalachian Mountain Club	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Please mark the places where you entered during the tour:

- Liberty Hotel
- Black Ink
- Blackstone's of Beacon Hill
- Appalachian Mountain Club
- Other (please specify).....

4. What was your favorite story, piece of information or experience in the tour?

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.....
.....

5. Why was it your favorite?

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Your first and last name.....

The city/town where you live

Your age.....

Your email address.....

Did you use your own iPhone to take the tour? Yes No

THANK YOU VERY MUCH!

INTERVIEW GUIDE – MURDER ON BEACON HILL

Beta Test, Sep–Oct 2009
(only for the interviewer)

SECTION 1 – CONTENT & LOCATION

1. **You wrote that your favorite story, piece of information, or experience was because....** (see questions 4 and 5 in the survey). **Can you tell me more about why you liked this story?**
 - a. **What component of the tour attracted you the most?** (Among the story about the murder, the architectural information, the historic information...)
2. **What piece did you like the least? Why?**
3. **How easy was to follow the development of the story about Parkman and Webster for you?**
4. **What do you think about the integration of the story with the physical space, and specifically the historic and architectural information about Beacon Hill? How being in Beacon Hill helped you to follow the story? Would you have preferred to listen to the tour without having to walk around?**
5. **Did you perceive that the story was a combination of episodes that can exist independently from each other or would you rather say that they need to be all together for the story to make sense?**
6. **Did you have any previous knowledge about the historical information in the tour?**
[If yes] **What did you already know?** (also, verify if respondent read book or saw movie)
[If yes] **Did this tour make you look at history in a different way?** (makes history feel personal, did you imagine things that were not in the tour...)

[If no] **Do you think that you learned any new information about Boston? What did you learn?**
 - a. **Did you visit Beacon Hill before?**
[If yes] **How did this tour make you look at Beacon Hill in a different way?** (e.g., did it make you look at details that you didn't notice before?)

SECTION 2 – PARTICIPATORY EXPERIENCES

7. **Did you go inside any of the suggested places?** (see question 4 in the survey)
[If no] **Why?** (Verify what, if anything, made the user uncomfortable and what would have pushed him to go inside the suggested places)
[If yes] **Can you tell me more about these experiences? Who did you talk with there? With which games did you play?**
8. [If took the tour with somebody else] **Did you make comments about the tour with other people taking the tour with you? What did you talk about?**
9. **Did you find that taking this tour was overall isolating you from the surrounding environment or rather taking you closer to it?**
10. **How often did you watch the screen of the device while listening to the tour?**
 - a. [If watched the screen other than to use the map] **Did you watch the videos? Did you**

read information about the segments?

b. [If answered yes to a.] Did you find that watching the videos or reading was isolating you from the environment or improving your overall experience?

c. [If answered no to a.] Why?

SECTION 3 – ORIENTATION

11. How easy was to find the right spots where to listen to the segments?

12. How did you orient yourself during the tour? Verify what respondent used: map, written directions, audio directions or images in the tour, street or shop signs, already knew the area, etc.

a. [If didn't take the tour alone] Who was looking for the locations of the tour? Mostly you or mostly the other person with you? Both equally?

13. Did you listen to any of the segments not in the suggested places?

a. [If yes] Why?

14. Did you follow the order of the segments in the map or did you jump around?

a. [If didn't follow the order] Why? (Verify if visitor preferred to create his own order or if he couldn't orient himself)

SECTION 4 – OTHER

15. How well did you identify as the target group for this tour?

a. Do you usually take audiotours at museums or other cultural sites? Why yes/no?

b. Do you tend to download applications to your iPhone/phone?

16. What do you think about the length of the tour and of each segment (too long/too short)?

[If didn't listen to the all segments for each stop] How much did you listen? Why you didn't listen to all segments?

17. What could have improved the usability of this application (e.g., position of buttons, download time, etc.)?

18. Did you take pictures during the tour?

[If yes] What do you think about having a photo-taking function integrated in your application?

20. What other functions do you think would have improved this application? (e.g., compared to other iPhone applications you used)

21. Do you have any other comments or suggestions?

22. How much would you be willing to pay for this tour?

At the end of the interviews, please specify on the completed surveys:

- Name of the interviewer
- Date
- Gender
- Nationality
- Number of people in the party
- Who the respondent took the tour with: (friend, partner, alone...)
- How the respondent was recruited
- How long did it take to take the tour

APPENDIX III: PARTICIPANTS AND PARTNERS

This project involved a diverse team of producers: application developers, actors, videographers, graphic designers, and musicians. There were also numerous neighborhood groups that helped develop the concepts and currently host artifacts and stops along the tour.

[Narrated by Alexandra McDougall](#)

Voice Work by Paul Logan, Jr

Soundtrack by [Sasha Mandel](#)

Directed by Michael Epstein, [Untravel Media](#)

Based on a film by Eric Stange and Melissa Banta, [Spy Pond Productions](#)

Animation and Video Production by Laura Piraino, Untravel Media

Graphic Design by Caitlin Maily, Untravel Media

Map Animation and Renderings by Michael Born, [Born Illustration, Inc.](#)

Application Design by [Raizlabs](#)

Project Coordinated by Susi Walsh, [Center for Independent Documentary](#)

Production Assistant, Brooke Scibelli

INTERVIEWS

S. Parkman “Parkie” Shaw, descendent of George Parkman

Ronald Story, historian

Karen Halttunen, historian

STOP HOSTS

[Massachusetts General Hospital, Programming and Special Events](#)

[Liberty Hotel](#)

[Black Ink](#)

[Blackstone's](#)

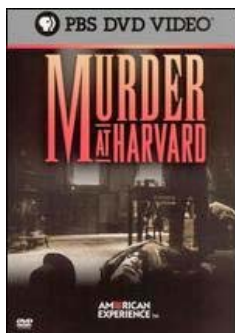
[Harvard Musical Association](#)

[Appalachian Mountain Club](#)

VIDEO SOURCES

[The Henry Ford Museum](#)

Spypod Productions Murder at Harvard



Spy Pond's 2003 Film MURDER AT HARVARD

ENDNOTES

ⁱ Interviews, various, by Untravel Media, Boston, Oct-Nov, 2009.

ⁱⁱ Same Source

ⁱⁱⁱ Same Source (45-year-old professor of History, New England College.)

^{iv} Same Source (20-year-old user)

^v Same Source (65-year-old user)

^{vi} Same Source (20-year-old user)

^{vii} Same source (30-year-old user)

^{viii} Same source (35-year-old user)

^{ix} Same source (30-year-old user)

^x Same source (20-year-old user and boyfriend.)

^{xi} E-mail correspondence with Prof. Ronald Story, University of Massachusetts, Amherst.

^{xii} Interview by Untravel Media, Boston, Oct-Nov, 2009 (65-year-old user.)