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Published online: 20 Nov 2014.

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Stitching the Future of the AIDS Quilt:
The Cultural Work of Digital Memorials

In light of a widening generational disconnect and the increasing fragility of the textile artifact itself, the cultural legacy of the AIDS Memorial Quilt is under threat. This article describes the collaborative creation of digital experiences that aim to augment and revitalize the AIDS Memorial Quilt as an artwork of continued social, cultural, and political significance. By discussing the past, present, and future of the AIDS Memorial Quilt, this article contextualizes the Quilt's technological journey, including the efforts to create digital datasets of images and metadata. This discussion will illuminate an important emergent area of design research in the digital humanities: the creation of cultural technologies for the purposes of digital memorialization.

Ioana Literat and Anne Balsamo

The AIDS Memorial Quilt is a unique work of international arts activism that reflects the worldwide scope and personal impact of the AIDS pandemic. It simultaneously functions as a living memorial, a form of political activism, an intimate tribute to lives lost, and the largest collaborative artwork in the world. Since its first display in Washington, DC, in October 1987, it has been seen by more than 18 million visitors. Under the stewardship of the nonprofit organization The NAMES Project Foundation Atlanta, programming around the Quilt has raised more than $4,000,000 for direct services for people living with HIV/AIDS. As of 2012—a quarter of a century since its inception—the Quilt commemorates more than 94,000 names of people who have died of HIV/AIDS in the U.S. and throughout the world (NAMES Project Foundation, 2013). While this number represents less than 1% of the worldwide deaths from HIV/AIDS since 1985, it does signify the massive impact that an epidemic can have on a generation.

Due to a series of factors—such as a widening generational disconnect, the shift of the crisis to the developing world, and new treatment options that often alleviate the fatal impact of the disease—cultural awareness of the AIDS Memorial Quilt in the United States has waned. A 2006 headline on the front page of the *Los Angeles Times* on the occasion of the 25th anniversary of the AIDS epidemic proclaims:

"The Quilt Fades to Obscurity." Reporting from Atlanta, Georgia, at the headquarters of the NAMES Project Foundation, *The Times* staff writer notes:

> Here, in a corrugated-steel warehouse in Atlanta, lies the AIDS Memorial Quilt, the most powerful icon in the history of AIDS. In the 25 years of the epidemic, no symbol has managed to capture the sense of rage and loss like the quilt, born in a San Francisco backyard in 1987. . . . Though small sections are still loaned out each year to about 1,000 schools, charities, and companies, the whole quilt—acres of fabric sewn to shame, alarm and remember—has not been rolled out in a decade. (Zarembo, 2006, n.p.)

Despite the NAMES Project Foundation's continued vigilance to promote the Quilt as a "poignant memorial, a powerful tool for use in preventing new HIV infections, and the largest ongoing community arts project in the world" (NAMES Project Foundation, 2013), a widespread cultural amnesia has taken hold. Younger generations (those born after the 1980s) have few memories of the U.S. AIDS crisis of the 1980s and few connections to those that had been affected by the disease.

Against this backdrop of generational cultural amnesia, and in light of the increasing fragility of the textile Quilt itself, Anne Balsamo, her

colleague Dale MacDonald, and a distributed team of researchers and designers developed a collaborative project with the NAMES Project Foundation to create a suite of digital experiences that would augment and revitalize awareness of the AIDS Memorial Quilt. The goal of this initiative was to resurrect the social, cultural, and political significance of the AIDS Quilt and to preserve and mobilize this textile artifact as a usable history. This article reviews the past, the present, and the future of the AIDS Memorial Quilt to elaborate the development of the digital experiences of the AIDS Quilt as a work of public humanities. To provide necessary context, we chronicle the technological journey of the AIDS Quilt, including the efforts to create digital datasets of images and metadata. This discussion will illuminate an important emergent area of design research in the digital humanities: the creation of cultural technologies for the purposes of digital memorialization.

The AIDS Memorial Quilt: 25 Years of Visual Activism

The AIDS Memorial Quilt was conceived by long-time San Francisco gay rights activist Cleve Jones as a politically motivated form of visual evidence. "I was obsessed by the idea of evidence," Jones writes. "I felt that if there were a field of a thousand corpses, people would be compelled to act. . . . I wanted to create evidence [of AIDS deaths] and by extension create evidence of government failure" (Jones, quoted in Capozzola, 2002, p. 94). After the 1978 assassinations of San Francisco Supervisor Harvey Milk and Mayor George Moscone, Jones had helped organize annual candlelight marches through the streets of San Francisco, culminating in a mass gathering in the plaza in front of the Federal Building. While planning the 1985 march, Jones had learned that more than 1,000 San Franciscans had died in the previous two years from what was then identified simply as "AIDS." To commemorate these deaths, Jones asked his fellow marchers to write the names of dead friends and loved ones on placards to carry in the annual Milk/Moscone march. That night in 1985, when the marchers reached the plaza, Jones had everyone tape their placards on the outer walls of the SF Federal Building. From a distance, the collage of names—written in a variety of colors and scripts—resembled, in Jones's eyes, a patchwork quilt. With this recognition, the idea of the AIDS Quilt was born.

As an American symbol of domesticity and family heritage, and a long-standing form of folk art, the metaphor of the quilt is highly significant.

"As I said the word quilt, I was flooded with memories of home and family and the warmth of a quilt when it was cold on a winter night," Jones (2011, p. xiv) recalls. The use of the quilt symbology also proved to be an effective way to convey the intimate, individualized experience of the disease, while at the same time literally stitching the issue of AIDS together with a symbol of mainstream American homespun tradition (Hawkins, 1993). The individual panels measured 3 ft x 6 ft, the size of a coffin coverlet used in burial rituals in the U.S. To create a quilted blanket, groups of eight panels were stitched together in 12 x 12 ft blocks.

Appealing to San Francisco's extensive gay activist network, Jones invited community members to create panels that commemorated the lives of loved ones lost to AIDS. By early 1986, Jones had gathered almost 1,000 panels. In June 1987, he teamed up with Mike Smith to create The NAMES Project Foundation, a nonprofit organization with the mission to care for and archive the (growing) AIDS Memorial Quilt.

In October 1987, the Quilt—totaling 1,920 panels—was displayed on the National Mall in Washington, DC, as part of the National March for Lesbian and Gay Rights (Jones, 2011). The choice of this exhibition site was integral to the sociopolitical objectives Jones had established for the NAMES Project Foundation. Laying the Quilt out on the National Mall brought the issue of AIDS—and the visual evidence of its destructive force—to the political seat of power in America. Marginalized from any policy or medical discussions about the emergence of AIDS, AIDS activists and those who were living with the disease seized the symbolic center of politics in the U.S. The panels of the Quilt symbolized the bodies that had died, and these were symbolically and ritually laid at the feet of the Capital's power holders. The political and activist use of the AIDS Quilt must be understood as a direct response to the *lack of visibility* that plagued AIDS-affected communities (mostly gay men and intravenous drug users) in the 1980s. At the same time the initial panic around the AIDS epidemic was fueled by the paranoia that infection was "not visible enough" (Meyer, 2002, p. 225). In this sense, well beyond its commemorative function, the Quilt was also intended as a tool to mobilize political action and to ensure access to economic resources needed for the fight against AIDS (Capozzola, 2002).

As Douglas Crimp has argued, in the case of AIDS-related art, mourning, and activism, while often framed as mutually exclusive, can and do

coexist; indeed, for those facing the AIDS crisis, "mourning becomes militancy" (Crimp, 1989, p. 9). The AIDS Quilt can, in this sense, be interpreted as a "spectacle of mourning," materialized in the "vast public relations effort to humanize and dignify [AIDS-caused] losses for those who have not shared them" (Crimp, 2002, p. 198). The existing social stigmas attached to most AIDS victims (gay men, sex workers, Black and Latino drug users), combined with the lack of knowledge regarding the causes and transmission of the disease, created a climate of fear and inflamed social tensions in the United States (Capozzola, 2002). In the mid 1980s, AIDS in America was—as Paula Treichler (1999) famously phrased it—not only a transmissible disease, but also emblematic of "an epidemic of signification." AIDS activists criticized the Reagan administration for its silence on the issue: President Reagan did not mention the word AIDS until 1985, when over 21,000 Americans had already died of the disease (Capozzola, 2002).

The emphasis on collectivity and diversity within the AIDS Quilt enhances its democratic character (Blair & Michel, 2007). The panels vary widely in terms of content, materials, color, and style. Most of them include the name of the person commemorated, as well as—usually—the years of their birth and death. Evincing the early and devastating stigma and shame associated with gay and HIV-positive people in the first years of the Quilt, many of the victims memorialized in the early panels are only identified by their first name ("Jack," "Vince," "Bob") or their relationship to the panel maker ("Daddy," "My brother," "My son"). A few are completely anonymous. Some panels rely heavily on words, while others rely on photos as additional "certificates of presence" (Barthes, 1981, p. 87). The AIDS Quilt is not only experienced visually, but dimensionally as well: Many panels include objects and memorabilia—from jock straps and teddy bears to wedding rings and cremation ashes.

In inviting panel makers to send in their contributions, the NAMES Project Foundation only stipulates the size of the panels (3 ft x 6 ft, in keeping with Cleve Jones's original convention). There are no specific requirements with regard to content or style, and the Foundation does not reject any panels. Once received, panels are accessioned and held until eight panels are selected to be stitched into a 12 x 12 ft block. Since the very beginning of the Quilt's cultural journey, one woman, Gert McMullins, has overseen the creation of each eight-panel block.

Although each grave-sized panel commemorates the loss of life and generally includes the same

basic elements you would find on a tombstone (name, year of birth, year of death), the visual and cultural rhetoric of the AIDS Quilt distances it from the image of a cemetery. The aesthetic of the AIDS Quilt contradicts the somber and solemn Western aesthetic of mourning and instead rejoices in its own tackiness, its kitsch, its audacity, and *irreverence* (DeLuca, Harold, & Rufo, 2011). As a collective (public) statement made up of individual (private) stories, the AIDS Quilt rearticulated practices of commemoration and brought to the fore the importance of affect in public art (Blair & Michel, 2007). As such, it marked a new era in American memorial art, with its influence being felt in subsequent memorials like the 9/11 Memorial at Ground Zero or the Oklahoma City National Memorial. Like Maya Lin's Vietnam Veterans Memorial, to which it is often compared, "the AIDS Memorial Quilt represents a relatively unique memorializing tactic in which the commemorative and political functions of monuments are densely intertwined" (Capozzola, 2002, p. 94). Its innovative design as a public memorial transcends passive contemplation; it extends an invitation to engage emotionally and make sense of its vast, chaotic, divergent messages. In experiencing the Quilt, there is no formal indication of where to start, which panels to look at, which to kneel in front of or to touch. In other words, as Capozzola (2002, p. 95) has commented, there is a wealth of "interpretative material," but no "interpretative hierarchy." In addition, the range of responses to the AIDS Quilt is also unbounded and undirected. Given the dichotomous tones of individual panels, laughter is just as appropriate of a response as tears or anger.

Certainly, one of the most awe-inspiring—yet also disquieting—features of the AIDS Quilt is its sheer size. Now covering more than 29 acres, its constant growth is a critical reminder that AIDS persists, despite recent medical advances in treatment options and longevity. As of 2012, the AIDS Memorial Quilt includes more than 94,000 names; on average the NAMES Project Foundation receives one new Quilt panel each day. The Quilt is comprised of more than 5,800 blocks (12 ft x 12 ft in size) that include more than 48,000 individual panels. The textile Quilt weighs 54 tons and, if laid out in its entirety, it would measure approximately 1.3 million square feet. If one were to spend just one minute looking at every panel, it would take 33 days to view the entire Quilt (NAMES Project Foundation, 2013). By 2012, the AIDS Memorial Quilt had become so big that only a quarter of it would now fit on the National Mall.

The AIDS Quilt's larger-than-life scale carries crucial implications in terms of the visual relationship between observer and object of sight. Laid out, in its immensity, the Quilt does not submit to the viewpoint of the grounded observer; instead, to get a sense of the scale, one must rely on bird's-eye views that offer the illusion of visual dominance. The inability to visually master the full extent of the Quilt thus shifts the relationship between subject and, respectively, object of vision. The visual dominance of the subject over the object is replaced by a mutually transformative process of meaning making, wholly dependent on the observer's acknowledgement of his own limited visual power when faced with the enormity of loss represented in the Quilt.

The enormous scale of the AIDS Quilt is also, unfortunately, the root of its current challenges regarding accessibility and display. The last complete display of the Quilt took place in 1996, when it was laid out in its entirety on the National Mall in Washington, DC. Now housed in a warehouse in Atlanta, maintained by the NAMES Project Foundation, the Quilt has grown too large to be exhibited in its entirety, or to travel—as a whole—across the country. Interested organizations can submit an application to host parts of the Quilt for special events, but given the cost of such an application (starting at $500 plus shipping and handling for one block, and increasing proportionately with the number of blocks requested), it is often difficult for grassroots activists and small organizations to muster sufficient funds. In addition, the NAMES Project Foundation stipulates that all displays must be indoors, which, from a logistical perspective, further limits the number of panels that can be displayed. Alternative strategies of accessing the Quilt are needed in order to preserve its legacy as a living memorial and to ensure widespread access in the most convenient and democratic manner. The emergence of digital platforms for storing and accessing visual data provides a promising path toward this goal and opens the next chapter in the life of the AIDS Memorial Quilt.

AIDS Quilt Touch: Three Digital Experiences

The summer of 2012 marked the 25th anniversary of the AIDS Quilt and the 30th anniversary of the public recognition of the AIDS/HIV pandemic. From June through the end of July 2012, the Quilt was featured at the Smithsonian Folklife Festival and on the National Mall in Washington, DC, for the first time since 1996. In addition, this display of the Quilt (part of the *Quilt 2012* program sponsored by the

NAMES Project Foundation) coincided with the XIX International AIDS Conference (July 22–27). While these events—attended by more than 1 million people—represented an important step toward reinvigorating the cultural visibility of the Quilt, the privilege of experiencing this living memorial was reserved for those who could make the trip to Washington. Moreover, the display of the Quilt—limited to four days during the annual Smithsonian Folklife Festival—meant that only a small selection of panels would be on display.

In order to expand access to and enhance engagement with the Quilt, Anne Balsamo, Dale MacDonald, and her research team in Public Interactives (based at the University of Southern California) collaborated with the NAMES Project Foundation to create—with help from a grant from the National Endowment of the Humanities Office of the Digital Humanities— three interactive experiences for the *Quilt 2012* events on the National Mall in Washington, DC: a tabletop browser, an interactive timeline, and a mobile web app.

Since 1996, the NAMES Project Foundation had maintained a website that included a simple search function allowing a user to find a particular panel—by name or panel number— within the database of digital images. NAMES staff members had long realized that this limited search capacity did not provide a robust experience of the AIDS Memorial Quilt, but it was the best that the Foundation could do with limited resources—both technological and financial. Additionally, the website did not enable a viewer to see the Quilt blocks virtually stitched together—in any approximation of the way in which the Quilt is laid out when on public display. Given this context, as Balsamo explained in the original grant proposal to the NEH, the following objectives guided the design of the digital experiences of the AIDS Memorial Quilt:

- Use appropriate digital technologies that enhance and augment the personal and embodied experience of viewing the textile Quilt.
- Raise awareness about the multiple stories of the Quilt panels.
- Assist people in viewing a specific panel.
- Assist in the annotation of the Quilt through the creation of tags and the collection of additional descriptive materials.
- Raise awareness about the archiving needs for the textile Quilt.
- Communicate the cultural importance of this work of international cultural heritage.

- Raise awareness about the contemporary status of AIDS in an international context.
- Promote the Quilt as a living memorial.

Interactive Experience #1: AIDS Quilt Touch Table

The first phase focused on the creation of an interactive experience based on one of the most compelling aspects of the Quilt: its spatialized expansiveness. The aim was to create a special display device and browsing application that would enable multiple users to view images of the AIDS Memorial Quilt on a horizontal surface at different levels of detail. The subsequent device that was created and installed on location in Washington is called the AIDS Quilt Touch Table; it consists of an interactive browser displayed on a touch-activated table that allows visitors to view, zoom, and pan across the high-resolution digital images of 48,000 Quilt panels.

The AIDS Quilt Touch Table digital experience made use of four interactive tables donated by Microsoft Research (Samsung SUR-40 with Microsoft PixelSense).

Through connections made by the NEH Office of Digital Humanities, Andy Van Dam and his team from the Computer Science Program at Brown University became key collaborators in the production of the AIDS Quilt Touch Table, developing a customized image display and browser system for use with the AIDS Quilt data sets. The interactive application was created within an environment called LADS (Large Artwork Display on the Surface)—a well-established effort at Brown University supported by Microsoft Research that is designed to enable interaction with large-scale art works using Microsoft's interactive table device, originally called Microsoft Surface.[1] LADS employs Microsoft's DeepZoom technology to dynamically load portions of the digital image of a large artwork at different resolutions. By smoothly swapping images of different resolutions, the DeepZoom application enables a viewer to zoom between a wide-angle view of the entire artwork and a close-up view of a single detail.

The AIDS Quilt project offered the Brown team an opportunity to work with a much larger work of art than they had used before with the LADS application. The digital representation of the entire AIDS Memorial Quilt measures more than 1.3 million square feet and is comprised of 5,800 individual digital images, with each image depicting one Quilt textile block that measures 12 ft x 12 ft. Using a specially configured version of

LADS on the Samsung SUR-40 (with Microsoft Pixelsense), viewers were able to contemplate the digital AIDS Memorial Quilt from different viewing perspectives, ranging from a bird's-eye view of the entire quilt (as if seen from the top of the Washington Monument) to a close-up view of a single panel. In research on mobile viewing experiences of visual data, one of the qualities that has been determined to contribute to a rewarding viewing experience is the ability to zoom between levels of detail: to toggle between a focal area and a view of the context of an image (Mulloni, Dunser, & Schmalsteig, 2010). By allowing for multiple viewing "distances," the AIDS Quilt Touch table encourages users to engage with the scale of the entire Quilt and to move from a consideration of the immensity and the physical expanse of the Quilt to a meditation on the details stitched into an individual panel.

The physical size of the table (3 ft x 4 ft) and its horizontal orientation enables multiple people to collaborate in browsing a spatialized image. It encourages viewers to see the images in a new way, to interact with the image database in a physical way through the use of touch. This mode of body-based interactive viewing is intended to re-embody a historical archive, as it invites reflection on the meaning of scale.

Researchers in human-computer interaction have held an ongoing interest in designing interface devices that facilitate face-to-face conversations in a social setting. In addition, studies suggest that the use of horizontal displays is particularly effective in supporting the collaborative viewing of visual data (Chiu et al. 2008; Tuddenham, Davies, & Robinson, 2009).[2] However, during the early phase of research on horizontal surface computing, display tabletops were not able to discern multitouch interactions, which meant that in order to collaborate, users had to effectively take turns touching the surface. Launched in 2008, the Microsoft Surface technology, which the AIDS Quilt Touch is built on, became the first multitouch commercial interactive tabletop. Relying on this technology, the AIDS Quilt Touch table thus allowed multiple users to manipulate the digital images at the same time because the device recognized multiple touch points on its horizontal surface.

Horizontal tabletop displays have been particularly effective in enhancing collaborative storytelling in public spaces (Rogers & Rodden, 2003; Mazalek, Winegarden, Al-Haddad, Robinson, & Wu, 2009). While the explicit purpose of the AIDS Quilt Touch Table is not to enable the creation of storytelling in a traditional sense, it is intended to promote the active

Figure 1 Visitors to the Quilt 2012 interact with the AIDS Quilt Touch Table.

engagement with the many stories represented by individual quilt panels. O'Hara (2010) makes the important point that tabletop computational surfaces actually involve both "interactive" user experiences and "noninteractive" experiences— where people gathered around a surface watch other people's actions. O'Hara argues that this is an important quality of the design of such devices because it allows for a wider engagement by people who would not want to personally interact with material but would still want to witness the dynamic nature of interactive information.

Interactive #2: AIDS Quilt Touch Timeline

A second digital experience, the AIDS Quilt Touch Timeline, took the form of an interactive timeline of the histories of AIDS and of the AIDS Memorial Quilt. To create this public interactive, Balsamo and her USC team collaborated with geoscience researchers from the University of California at Berkeley on another Microsoft Research sponsored project called ChronoZoom.[3] Displayed on a large Sharp Touch Display at the open-air tent that housed all the *Quilt 2012* digital experiences, the timeline enabled visitors to browse a visual record of key events marking the 30-year history of the AIDS

pandemic and the 25-year history of the creation of the AIDS Memorial Quilt.

This interactive was created as a way to educate new audiences not only about the history of the AIDS Memorial Quilt but also about the history of the development of the AIDS epidemic. The AIDS Quilt Touch Timeline allowed the technology docents to have conversations with visitors about the broader social, political, and biomedical events that are part of the multifaceted history of AIDS and the Quilt in the United States. The lessons to be learned and remembered from this epidemic spread across the key domains of human life that are the focus of humanistic scholarship: There are lessons to be learned about the social practices of medicine and epidemiology, about the cultural understanding of sexuality, about the role of linguistic sense making in the middle of a crisis, and about ongoing tensions between theory and practice. As Paula Treichler writes,

> The AIDS epidemic is cultural and linguistic as well as biological and biomedical. To understand the epidemic's history, address its future, and learn its lessons, we must take this assertion seriously. Moreover, it is the careful examination of culture that enables us, as

Figure 2 Close-up of the AIDS Memorial Quilt Browser application.

> members of intersecting social constellations, to think carefully about ideas in the midst of a crisis: to use our intelligence and critical faculties to consider theoretical problems, develop policy, and articulate long-term social needs even as we acknowledge the urgency of the AIDS crisis and try to satisfy its relentless demand for immediate action (Treichler, 1999, p. 1)

In creating this interactive experience, we were especially interested in taking into account the critiques of the way in which AIDS and the understanding of HIV have been "narrativized" in the "official histories" of the epidemic. Many scholars and activists contest these "official histories" for the pejorative bias that sneaks into descriptions and accounts. For example, the persistent reference to people who are infected with HIV as "AIDS victims" or even "AIDS patients" promulgates identities that are not consonant with the those promoted by activists and people living with HIV. The term "victim" implies a state of powerlessness; the identity of

"patient" is meaningful only from the point of view of a medical system.

In effect, we created counternarratives that displaced the figure of the "hero scientist" and the process of "science as discovery." While we noted the specific medical researchers who were involved in identifying HIV, we contextualized these accounts by including key episodes that highlighted critical acts of intervention—when activists confronted government officials and protested official policies. The story about the history of AIDS/HIV that is not told enough, we believe, is the account of how the practice of medical science was actually transformed by the work of activists during the early days of the epidemic. After all, it was the work of an activist, not a government official or medical researcher, that prompted the Red Cross to finally understand that its entire national blood supply needed to be screened in order to prevent transmission of HIV.

Interactive #3: AIDS Quilt Touch Mobile Web App

The third interactive experience created for the *Quilt 2012* events was developed by a team from the Digital Studio for the Public Humanities at the University of Iowa, under the direction of artist Jon Winet and in collaboration with Dale MacDonald and Anne Balsamo. With a very short development time of less than six weeks, the team created a beta version of a mobile web app called AIDS Quilt Touch. The app enables people to search for a specific Quilt panel by name and view it in high resolution, contribute comments to a Digital Guest Book, and locate the display of a specific panel at the *Quilt 2012* events on the National Mall.

The AIDS Quilt Touch mobile web app launched on June 27, 2012. Built using open-source tools, it makes use of the most advanced protocols of responsive web design (RWD) to provide a platform-neutral viewing experience that enables users to navigate information with minimal efforts of resizing or scrolling of web pages. Accessible on a wide range of devices (computers, tablets, mobile phones), the AIDS Quilt Touch mobile web app makes use of newly emergent conventions of gesture-based interactivity. During the *Quilt 2012* events, the team of tech docents often served as "digital quilt archaeologists" using the application to find specific quilt panels or in some cases to identify panels based on imprecise or incomplete information.

The mobile web app AIDS Quilt Touch is an open-source prototype that will be used (in the

Figure 3 Our tech docent and a young visitor tour the Touch Timeline of the History of AIDS/HIV at the Smithsonian Folklife Festival, 2012 (photograph by Sherry Moore, used with permission).

future phases of this project) as the platform for the development of an articulated media system that enables the dissemination, cocreation, and preservation of an extensive digital archive of quilt materials, including not only panels from the AIDS Memorial Quilt but also from other collections as well from the Quilt Index. The design of this system incorporates key insights from contemporary cultural theory, science-technology studies, and design research. Drawing on work by Balsamo (2011), this effort is designed as a sustained project of "the technological imagination at work." In this project, as well as those that come next, we seek not only to develop new technologies, but also to manifest the process of technocultural innovation.

Implications

From the very beginning of the development process, the research team saw these digital experiences not as a substitute for the physical Quilt but as an enhancement of it and a means to increase access and awareness. Nevertheless, due to the particular on-site circumstances in Washington, DC, the digital AIDS Quilt came dangerously close to becoming that dreaded substitute. Due to intermittent rain, the AIDS Quilt could not be displayed in its entirety on any of the four scheduled days of programming. Volunteers tentatively laid out a few blocks of panels, only to fold and pick them up again when rain started to pour anew. In moments when the rain ceased, the grass on the National Mall remained wet, posing the threat of mold and thus endangering the textile Quilt. After the first two

days, efforts to lay out the Quilt on the Mall were suspended. Private viewing sessions were accommodated, as much as resources allowed, inside the NAMES Project Foundation's tarp tent; however, the number of visitors who managed to see their panel of choice in such viewings was limited, given the shortage of volunteer staff, the lack of space in the tent, the immense difficulty of finding and retrieving specific panels from the cargo trucks, and the overwhelming strain of these numerous requests on the infrastructure of the event. Sadly, those visiting Washington, DC, to see the AIDS Quilt displayed in its entirety for the first time since 1996 left disappointed. The only Quilt they saw turned out to be a digital one.

While the digital experiences of the AIDS Quilt Touch project might have been popular with DC visitors anyway due to the novel and interactive character of these technologies, the particular circumstances that prevented the exhibition of the textile Quilt certainly contributed to our project's tremendous success. Located in the NAMES Project Foundation official tent—the same tent where visitors queued to request private panel viewings—the digital devices garnered significant attention. In reflection on the overall experience, these devices did provide a sense of comfort to those saddened and disappointed by the absence of the textile Quilt. Reflecting the success of the AIDS Quilt Touch digital technologies with the DC public, the news media similarly praised the interactive experiences, noting—candidly but somewhat problematically—that the digital AIDS Quilt "stole the show" on the National Mall (Parnass, 2012).

Figure 4 AIDS Quilt Touch mobile web app launched for the first time, June 27, 2012 (photograph by Sherry Moore, used with permission).

Beyond the evident concern for preservation, the primary benefit of the creation of these digital experiences is that they offer opportunities for increased accessibility and visibility of the AIDS Quilt as a living memorial. Given the sheer size of the Quilt and the logistical difficulties associated with displaying it, the AIDS Quilt is difficult to keep in the public eye. Online, global, multiplatform access can help keep the Quilt visible. The AIDS Quilt Touch app, furthermore, introduced a new mode of annotating the Quilt by allowing, via the online text-based submission system, for personal contributions—called "celebrations" in the terminology of the app. Participating in the rhetoric of the Quilt through the process of annotation thus builds onto the public/private dynamic that is at the heart of its commemorative and affective powers and has the potential of adding new layers of narrative signification onto the richness of the visual information.

Along with these valuable opportunities, nevertheless, the digital version of the AIDS Quilt also falls short from a variety of perspectives, and it is important to acknowledge and discuss these limitations. Primarily, a crucial aspect of the textile Quilt, which is lost in the digital images, is the tangibility and texture of the material. Given the impressive stitching and unique materials and memorabilia that adorn many of the panels, the experience of the AIDS Quilt is significantly enhanced by the visitor's tangible interaction with its surface. The metaphor of the quilt—which represents, as previously mentioned, an essential feature in the aesthetic and cultural symbolism of the AIDS Quilt—is somewhat eroded in the absence of

texture. As Carole Blair cautions, the flattening effect of the Quilt's visual reproduction transcends the issue of two-dimensionality and also refers to "the metaphorical flattening of experience" (Blair, 2001, p. 275). When laid out for display, the blocks of panels are purposefully arranged in such a way as to leave room for the visitors to walk among them. The Quilt invites one to walk through it, kneel down, touch it—in short, to become, along with the other visitors that walk alongside you, a moving part of its visual rhetoric. The physical and social embodiment of the viewer who experiences the textile Quilt is lost in the digital version.

The scale of the Quilt—which represents a quintessential element of its visual and political power—is much more evident in the textile artifact that in the digitized version. On the one hand, the act of viewing the images of the Quilt on a digital device allows users to choose their preferred scale along a continuum: Thus, according to their desires, they are able to see the entire panorama of the Quilt from a bird's-eye view. The digital experience adds digitally native frames in addition to these existing, formal frames: specifically, the browser window and the screen itself now become part of the visual framing of the Quilt. As Anne Friedberg (2006, p. 98) reminds us, "the frame itself carries with it some subjective consequences." In this case, as a result of the digital (re)framing of the Quilt, the metaphor of the 3 x 6 burial plot is lost, and the observer can reclaim visual dominance over the vastness of the Quilt, while the additional framing devices may impose a more significant distance between the viewer and the artifact.

Given his concern for tradition and historical testimony, Walter Benjamin's thoughts on the mechanical reproduction of artworks take on a multilayered significance when applied to the digitization of the AIDS Quilt. "The technique of reproduction detaches the reproduced object from the domain of tradition," Benjamin (1936) wrote. "By making many reproductions, it substitutes a plurality of copies for a unique existence. And in permitting the reproduction to meet the beholder or listener in his own particular situation, it reactivates the object reproduced." While the reproduced object is devoid of its "aura" and authenticity, in the case of the digital AIDS Quilt, this process of personalized reactivation is, in a sense, the needed resignification that delivers the Quilt from a state of cultural amnesia. Because the cultural magnitude of the AIDS Quilt as a political text and a living memorial far outstretches its aesthetic claims as an artwork, the historical testimony embedded in the Quilt does not

necessarily rest on its authenticity—as Benjamin argues in reference to objects of art. Rather, given the joint political and commemorative functions of the AIDS Quilt, the potential of mechanical reproduction to facilitate a visual encounter between subject and object is worth the loss of "presence" and mitigates the reinvention of tradition.

The consideration of the gains and losses occasioned by the digitization of the AIDS Quilt is highly complex and, to a certain extent, unquantifiable. The crux of the matter is not the number of gains versus losses, but their respective significance within the overall cultural and aesthetic mission of the original artifact. Stripped down to its core, the digitized AIDS Quilt is a public archive, and "archives are always political spaces" (Morris, 2011, p. lv). The political dimension of the archive thus brings to the fore vital questions regarding accessibility, presentation, and interpretation.[4] In light of these reflections, the next and final section will examine the more long-term cultural implications of these digitization efforts on the future of the AIDS Memorial Quilt, as well as the impact that this process may have on the visual redefinition of digital humanities as a field of knowledge production.

Looking Ahead: The Future of the Quilt(s)

To continue cultivating the heritage of the AIDS Memorial Quilt as a living memorial, it is imperative to engage youth, in spite of—or precisely because of—their generational distancing from the original context of the Quilt. The participatory opportunities offered by the digitization of the memorial and by its presentation as a mobile web app hold a great potential of meeting these young people where they already are: online, on smartphones, on social networks. In addition, given the centrality of distributed production in the lives of the youth in the U.S., a particularly promising strategy of engagement is the development of further opportunities for personal annotation. With the seamless integration of multimedia annotation capabilities into the digital AIDS Quilt image database, Balsamo and MacDonald are now working on the development of a platform that would enable users to add media-rich tributes in addition to written narratives. Thus, a nephew could annotate his late uncle's panel with childhood photos of family trips, a home video of his wedding, or his uncle's favorite song or comedy skit. Another intriguing—if slightly provocative—possibility is the addition of wholly digital panels, which could be layered on top of the original panels or, in an effort to extend the

commemorative footprint of the Quilt, could memorialize individuals that are not already represented in the textile Quilt.

Secondly, if the engagement of today's youth is to be an attainable goal, we must recognize that the face of AIDS in the United States is changing. As a living memorial and not a museum piece, the AIDS Quilt must better reflect the shifting demographics of the disease. "Difficult divisions exist between the gay community and inner-city black and Latino communities in all facets of the epidemic. Though outreach to communities of color has increased, the quilt is still seen as a white, gay project," explains communication theorist Marita Sturken (1997, pp. 210–211). Given the current demographic pattern of new infections, the inclusion of these social groups in the commemorative and political rhetoric of the Quilt is urgent. Zarembo (2006, n.p.) notes,

> Today, the fastest-growing groups of AIDS patients are minorities and women, many of them poor. But just 616 blocks include panels for women, who now account for 27% of new cases. Only 260 commemorate a black AIDS victim, even though blacks represent nearly half of new infections.

The increased accessibility and participatory features of the digital version offer a chance for targeted educational programs and awareness initiatives that would redefine and expand the demographic scope of the Quilt. Furthermore, beyond the national sphere, the online accessibility of the digital Quilt can facilitate much-needed global connections. As Capozzola (2002, p. 104) concludes, "while the American symbolism and nationalist rhetoric of the Quilt served it well in the 80s, it is now time to more explicitly and more effectively acknowledge the global implications of the AIDS epidemic."

From a research perspective, the digitization of the AIDS Quilt can shed light on the future of digital humanities as a mode of inquiry. In this respect, the visual nature of the Quilt is a fundamental consideration. Because the objects of study within the emerging field of digital humanities have been largely text-centric (as Balsamo and others have argued), the digital AIDS Quilt provides an opportunity to think about the methodological questions that emerge when working with visual data. Specifically, how can we apply computational processes to visual information in order to identify patterns, extend our understanding of comparative modes of signification, and generate new knowledge? Beyond these normative considerations, there is also a set of pragmatic questions that emerges

when working with visual "big data," as visual information is often not amenable to automatic processing. In the specific case of the AIDS Quilt, for instance, an initial challenge was identifying the layout and orientation of panels. While most blocks contain eight panels, their arrangement varies widely and is impossible to detect via computational scanning. Balsamo's team created a "community sourcing" application to assist in the identification of each block layout.

In the near future, we hope to use the same "community sourcing" techniques to obtain information about materials, colors, symbols, and text that appear in individual Quilt panels. Balsamo and her team are working to design strategies of public engagement through the creation of incentives and opportunities for "civic archiving." Here we remember Cleve Jones's avowal that the AIDS Quilt is "not intended as a passive memorial" (Jones, quoted in McKinley, 2007). While the research functions of the digitized AIDS Quilt are necessary and compelling, we should not forget that it is a deeply political artifact, its history being inextricably bound to the history of AIDS activism. A cultural rediscovery of the Quilt, by means of these digital and participatory opportunities, can facilitate a process of "queer archive activism," whereby AIDS images are not merely remembered, but "relodge[d] . . . in contemporary contexts so that they, and perhaps we, can be reanimated" (Juhasz, 2002, p. 320). Due to the sociocultural significance of the AIDS Quilt in regards to visibility and empowerment, the articulation of a collective historical consciousness of both past and present is a necessary step toward an AIDS-free future. As a reminder of the ongoing vitality of this struggle, there is one AIDS Quilt panel that has been set aside since 1987. Unlike traditional panels, it does not name any names; instead, it commemorates "The Last One," the very last victim to die of AIDS. "When the last one is named, we will begin to heal," the dedication of the panel reads.

Notes

[1] The LADS environment was originally developed to create an interactive experience for viewing the famous Garibaldi Panorama—a single painting that measures 4.75 ft tall x 370 ft wide.

[2] In the early 2000s, Balsamo, with colleagues at Xerox PARC, were involved in research efforts to develop the Tilty Table, an interactive museum exhibit created as part of "XFR: eXperiments in the Future of Reading" (Back et. al., 2001; Balsamo, 2011; Harrison et al.,

2001). This work represented a significant step toward Balsamo and MacDonald's later development of the AIDS Quilt Touch table.

[3] Researchers involved in the creation of the AIDS Quilt Touch Timeline included—from Microsoft Research: Rane Johnson and Michael Zyskowski; from University of California, Berkeley: Roland Saekow and Madison Allen; and from University of Southern California: Anne Balsamo, Lauren Fenton, and Rosemary Comella. The ChromoZoom project is described at http://www.chronozoomproject.org/.

[4] In *Archive Fever* (Chicago, IL: University of Chicago Press, 1998), Jacques Derrida identifies the "nomological principle" inherent in the archive. Taking an etymological route, he explains that *archive* comes from the Greek word *arkheion*, which denoted the residence of the superior magistrates who made and interpreted the law (pp. 1–2).

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