Archiving Ephemerality: Digitizing the Berlin Wall

by

Jordan Marie Noyes

Program of Historical and Cultural Visualization
Duke University

Date: ____________________
Approved:

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Mark Olson, Supervisor

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Kristine Stiles

________________________
Victoria Szabo

Thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Arts in the Program of Historical and Cultural Visualization in the
Graduate School
of Duke University

2015
ABSTRACT

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Abstract

This thesis explores the way digital technologies inflect experiences with and meanings of art historical objects. Specifically, it addresses the way digital technologies can change the archiving, exhibiting, and experience of ephemeral art. It does so by 1) providing a discussion of archival theory, museum practices, and the use of photography as a primary means of archiving ephemeral art, and by 2) creating three digital visualizations that focus on the same problematic but leverage different technologies: Palladio, Neatline, and Unity 3d, respectively. These archival exhibits highlight spatial, temporal, and relational details that are often lost in the photographic documentation of ephemeral art. Alone, the archives highlight specific aspects of ephemera, but collectively in the exhibit, a more comprehensive record of ephemera is achieved. This emphasizes digital technologies ability to create widely accessible archives, educational resources, and different archival processes that add meaning to the records.
To all of my favorite goobers.
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Introduction

The word archive conjures images of dusty libraries, filing cabinets, and endless shelves of documents. Archives are the home of history, memories, and anything deemed worthy of preserving. New technologies, particularly digitization and the Internet, are changing the archival process as well as the material that can be archived, but it is not always changing the information being archived. For example, art, long archived in the basements of museums, can now be accessed online through the digitization of museum collections sharing the works with a larger audience. This thesis explores the way digital technologies create potentially novel experiences and meaning for art historical objects. Specifically, it will address the way digital technologies can change the way ephemera is archived, experienced, and exhibited. I propose that new technologies provide more satisfactory means of archiving the rich context surrounding art via a series of case studies, attempt to work through the affordances of different technological platforms in their capacities to archive and exhibit ephemeral street art.

Working with ephemeral art can be frustrating. Often times, the physical artwork itself no longer remains and a photograph is all that is left to document
its existence. Many of these art forms, which include performance pieces, installations, land art, dance, and street art, have important cultural, social, and/or political themes that are sometimes lost when the work is archived as a single photograph. Of these art forms, street art is one of most difficult to capture. Unlike dancers or artists working on an installation, street artists have little control over the duration and preservation of their work. Weather, authority figures, clean up crews, rival artists, construction, and anyone with access to paint can alter and/or destroy the work. For this reason, photography is a blessing to street art. It reproduces the visual aspects of the work and creates an enduring reference to something that once was. This provides connection to the artwork, serving as a validation of its existence as well as a temporal and spatial record. Siegfried Kracauer puts this function in direct opposition with memory, which he says captures significant moments and personal connections rather than space and time.¹ The photograph can, however, instigate memory recall representing significant moments, events that cannot be easily reproduced in a static medium. While photography has these advantages, it also comes with

its problems. It frequently does not capture the full spatial context, the performative\(^2\) nature of painting a space (legally or otherwise, or even the identity of the artist. By creating interactive archives and exhibits, many of these ephemeral artworks could be re-contextualized and seen as more than just vandalism. I chose to focus on the Berlin Wall as my case study because it presents a large corpus of artworks, a dual ephemerality with both the Wall and art changing and disappearing, and a chance to think about repurposing the detritus that survived the Wall. Furthermore, it represents art that is firmly rooted in a political and social context that continues to be relevant today.

The Berlin Wall was erected in 1961 and became more than just a divide between East and West. With World War II over, Allied powers Great Britain, the United States, France, and the Soviet Union split Berlin into four occupation zones in the hopes of returning the city to a stable condition. The theory was

\(^2\) Performative refers to qualities of ephemeral art such as the unexpected or the interactive. For many ephemeral arts (theater, dance, street art) there is a level of audience participation and reaction. For dance and theater the artists and/or others literally perform while street artists perform by subverting cultural norms in urban spaces, creating surprise, and reacting to social controversies. For this paper, performative refers to these layers of interaction and relationships between art, artist, audience, space, and time. For more on performance see: Peggy Phelan, *Unmarked: The Politics of Performance* (London and New York: Routledge, 1993); Kristine Stiles, “Performance Art” in *Critical Terms for Art History*, ed. Robert S. Nelson and Richard Shiff (Chicago: University of Chicago Press, 2003): 75-97; Anna Waclawek, “Performing Street Art” in *Graffiti and Street Art* (London: Thames & Hudson, 2011), 96-101; Rosemary Klich and Edward Scheer, *Multimedia Performance* (New York: Palgrave Macmillan, 2012).
short lived, however, and the foundation of the German Democratic Republic (GDR) in East Germany and the continuation of the Federal Republic of Germany (FRG) in West Germany became the start of a near 50-year separation of East and West Berlin. On August 13, 1961 the GDR placed barbed wire between the Soviet section and French/British/American section of Berlin. In 1979, the final iteration of the Wall was built. Running nearly 27 miles, the concrete Wall was constructed with prefabricated L-shaped panels, each standing nearly 12 feet high, and 4 feet wide, and weighing more than 2 tons.\(^3\) This new Wall was the perfect canvas for people to react to the Wall itself referencing the political situation that brought it into being, using it as a space for social commentary, and painting it as a means of creative expression. As such, it was an important site in the history of ephemeral art. It was one of the first spaces that became a worldwide presence as a symbol of the Cold War in an era of televisions, which created easy and speedy access to international events, and commercial flights, which transported thousands of tourists to visit, paint, and/or document the Wall.

The art on the Wall was constantly overwritten as others took up their paintbrushes, spray cans, and posters to make their mark. Because of this, no one photograph can capture the whole story of the Berlin Wall. Instead, they capture only fragmented moments in the Wall’s history. Moreover, the Wall was torn down beginning on November 9, 1989, disappearing and dispersing altogether as an artifact. Fragments can be found at St. George’s Mall in Cape Town, the Saharov Museum in Moscow, the Dada Museum in Israel, and at more than 50 museums and public spaces across the United States as well as in personal homes as tourists around the world collected chunks of the Wall.4 The Wall remains an important symbol of division and relates to other walls, both physical and ideological, that exist today: from the West Bank wall to the neighborhood divisions in Belfast, which use murals to mark territory lines. For this reason, the Berlin Wall provides an historically and artistically rich study of ephemeral art while remaining relevant to contemporary political happenings as well as continued street art practices.

The Berlin Wall has been well documented through books, film, photography, and, in the last 10 years, digital reconstructions. Each of these archival modes has its pros and cons. By creating new digital visualizations of the Wall, I hope to highlight the benefits of looking towards new methods of archiving that emphasize the ephemerality of the art and the Wall itself. For example, multiple photographs can provide evidence of the way the graffiti layered over time, but a video or virtual exhibit can recreate that change as it happens emphasizing the ephemerality of the artwork (figure 1). By working with digital technologies, I am aiming to provide easily accessible narratives and histories of the Wall that offer a broad audience the chance to skim the surface of the Wall’s complex history or dive deeper into the metadata to explore the subtler narratives.

For the “practice-based” portions of my thesis research, I have created a flat file database and three digital representations that archive and exhibit ephemeral art within detailed contexts: 1) an exhibit that uses the gaming platform Unity 3d; 2) a searchable gallery database using Stanford’s web-based data visualization program Palladio; and 3) a narrative map using Neatline, a geospatial visualization tool built on top of the digital archival system Omeka.
By bringing cultural and historical details, geospatial information, and temporal framework to the forefront of each of the digital tools, I hope to begin to contextualize the art of the Berlin Wall within archive studies and museology more broadly. The comparative nature of this project is central; cross-comparisons between tools, their affordances, use of metadata, and utility in particular contexts, is the key to this project. In order to conduct this comparison, I will ask four questions of each visual:

- How does this digital representation differ from a traditional archive/exhibit?
- Does this approach work more effectively to convey ephemerality and/or context?
- What story does it tell? Are there new connections/relationships?
- What advantages/disadvantages does this digital archive/exhibit offer different imagined users: the scholar, the student, the layperson?

These questions call forth the larger question of how digital technologies can change the way we think about experiencing street art. Furthermore, I am especially interested in how a simple flat file database can serve as a shared foundation that feeds into these different “front-end” technologies. The database
will be present in each visualization and its use in creating that visualization will be well-documented.

The three digital visualizations each leverage a different set of technologies but focus on the same problematic: How can digital technologies change the way we archive, experience, and exhibit ephemeral art? Before examining this question, I will ground my analysis in archive and museum theories and explore existing digital representations of street art and the Berlin Wall. The first section focuses on archive theory, curation, and photographic documentation, highlighting the problems raised when trying to archive and exhibit ephemeral art. I then analyze practical applications of digital technologies by looking at past reconstructions, exhibits, and archives of ephemeral art, focusing primarily on those relating to the Berlin Wall. The affordances of each visualization will be assessed using the same questions I asked of my own digital projects to contextualize the comparison within a variety of multimedia research. The second chapter discusses my own work, explaining the research methods, data construction, and decision-making process that went into creating each digital component. The comparison of the three will put it into conversation with prior projects to see what it does well and where it
may fall short of other visualizations. Finally, the conclusion will pull together the digital tools and discuss new findings that arise from rethinking the way archives and exhibits tell the story of the Berlin Wall.
Archives and Digital Technology

There is no agreed upon definition for the word archive. Scholars have debated the issue from many points of view, but one idea recurs: the archive as place. Mike Featherstone writes, “the archive is the place for the storage of documents and records.”¹ French philosopher Jacques Derrida took a linguistic approach to defining the archive, bringing it back to its Greek root arkhe, which referred to a physical structure that housed state documents.² Using this definition brings forth the problematic nature of archiving because all attempts to create order in the archive deconstruct the archive. The curation of the archive removes objectivity and controls what is visible and deemed worthy of preserving. For example, the archive is visible to the public, but also invisible because its records are controlled, classified, and sorted, ultimately fixing them to one narrative, space, and time. Place roots the material of the archive in space and time and limits access to materials to a select few. This space and construction of the archive becomes the context of the collection and shapes the

way society understands and uses the archive. Susan Yee uses a nostalgic narrative to similarly point out the relevance of the physical home of objects in shaping the archive, particularly in a digital age. The process of asking for, examining, and being in the physical presence of the object had created a ritual to her days and without it left her feeling ambiguous about digital replication of archival artifacts. The personal connection was gone and replaced with feelings of anonymity that forced her to question how society will experience digital creations, which have never been physical and have only ever lived in an ambiguous space, and what that experience will look like; questions she raises, but does not answer. While Yee’s experience focuses on a single, personal experience, her questions emphasize the complicated nature of the digital archive that this thesis addresses.

**Archive Theory**

Digital archives have a place, but differ from the archives referenced by Featherstone, Derrida, and Yee. The server functions as a place for anything digital, allowing the archive to reach many. This differs from physical buildings,

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which require visitors to travel to the archive. A digital archive comes to the user. Its place is mobile, not static, which complicates the idea of the archive as a place. Instead of focusing on the space an archive occupies, Kim Sawchuk emphasizes the medium of the archive. For her, “considering an archive as a medium emphasizes its character as a complex organizational tool that facilitates or impedes individual and social communication.”[^4] The focus is placed on what the archive transmits rather than how and where it stores records. This is key to my digital project, which explores the stories different media enact as archives. The affordance of the digital tool enriches the archive as story. For the purposes of this study the digital archive focuses on the archive as media while the traditional archive is defined by place.

With this distinction in mind, it is important to examine why society has “archive fever” as Derrida calls it. Fear of loss, creating a legacy, identity, or heritage, and legitimizing knowledge are perhaps the most important driving forces behind the need to create archives.[^5] Ephemeral art is not immune to this

Heike Roms claims that archiving performance art, a form of ephemeral art, is driven by both having a traceable history of a body of work and emphasizing the political potency of the art form, especially as a means of contradicting commodification and mass reproduction. It legitimizes the artworks even after they disappear and gives power to their political and/or social contributions. For the Berlin Wall, this is crucial. The Wall was saturated in conflicting political ideals and those who painted it were reacting to the complex social effects of living within its shadow. Each artwork represents a significant contribution to political and cultural histories and speaks to modern day struggles with walls such as the West Bank wall or United States/Mexico border wall. Archiving the images on the Wall legitimizes their contribution to

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cultural history, heritage, and identity and denies loss by preserving the ideas that founded each artwork.

An underlying principal in many archive theories is that records and objects, which can collectively be called data, drive archives. By creating classifications, ordering records, deciding what content is worthwhile and what can be overlooked, and choosing what should be stored or disposed of, a natural bias is created. For many, including Brown and Davis-Brown⁷, Featherstone⁸, and Foucault⁹, archives are heavily curated to serve a state, library, or museum purpose. They can be used to legitimize knowledge, memory, and history. While this is true, the archives still require primary documents or objects to support any claims made by the state, library, or museum. Archives are meant to be objective repositories. However, organization of records, classifications for ease of search, and availability of materials influence the compilation of the archive. Every archive tells a story.

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The Archive and the Museum

While archiving artwork is an essential part of this thesis, exhibiting the archive is equally as important. The relationship between archive and exhibit is a complicated one. Prior to the 20th century museums, libraries, and archives shared spaces as they served similar purposes as information collections. They began to separate as “funding, education, and public perception” changed and created distinctions between the institutions.10 Today there is a trend to reunite libraries, museums, and archives into a collective unit of memory in order to enhance educational experience and strengthen cultural history. One of the major differences between archives and museums is the way their collections are formed. An archive is meant to objectively store documents and records in an orderly way, but a museum collection, or any art collection, does not have the same transparency of purpose and often collects with a specific theme in mind.11 Despite this difference, the museum serves as a kind of archive collecting and preserving unique objects to share with the public.

11 Latham and Simmons, Foundations of Museum Studies, 23.
Exhibits developed as a part of the modern museum, which came about in the second half of the nineteenth century when the British Museum decided to serve “the dual purposes of research and public education.” Like the archive, museums are now focused on being a resource of knowledge. Unlike the archive, they also strive to create meaningful experience and transmit ideas, not just facts. They provoke visitors to think about concepts and ideas based on facts and presented through visual narratives. Creating an experience is the primary reason for creating the virtual exhibit. Not only is it important to capture the experience of street art for documentary reasons, but also to create an effective exhibit that transmits the important narratives of the time and space in a memorable way. The searchable database and narrative map tell stories, but are meant to be more factual and archival than the exhibit, which uses the archives to highlight narratives that emerged through these new digital methods. In using these three tools, I highlight both information structures and present a way to connect the archive and exhibit playing off the strengths of both to enhance the user’s experience.

12 Latham and Simmons, *Foundations of Museum Studies*, 32.
13 ibid, 51.
To this point, traditional archives and museum exhibits have been discussed in relation to recording and storing physical objects. However, many intangibles are equally valuable, but difficult to archive or exhibit. Ephemeral art falls between the tangible and intangible. At some point in time, it is a physical artwork, occupying a space, having texture, and existing in the world. Then it disappears. Unlike many artworks, which undergo conservation in museums, ephemeral art has a lifespan by its very nature. Archives desire objects or records that can be preserved and in theory last forever, which is not possible for ephemeral art. Instead, photography and film are the primary means of documenting the artworks. This challenges the structure and theory of the archive, as the photographs and video are reproductions of the original work rather than the primary objects themselves.

Archives privilege photographs because they have “been endowed with [the] principle of uniqueness.”\textsuperscript{14} They are considered factual, recording temporal and spatial data and providing a descriptive depiction of the subject. Siegfried Kracauer hesitates to give the photograph this much documentary power, saying

the photograph is a likeness. He refers to a photo of a grandmother, which strikes him as wrong because the photo of the 24 year old woman is nothing like the woman known years later, stating, “the image alone would not have sufficed to reconstruct the grandmother.” This is because an image loses “life” over time. The older the image, the less truth content it contains because, like grandma’s photo, “photography is bound to time.” Left alone with no history or contextualization, the image dissolves into something irretrievable. This is where memory and/or historical documentation are important in maintaining or reviving the photograph.

**Documenting Ephemeral Art through Photography**

Photographs are strongly linked to memory as noted in the discussion of Kracauer in the introduction. Some scholars see the photograph as a memory aid, a poor substitute for history, or a media that must be completely removed from memory. Generally, amateur photographs are taken to capture a

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16 ibid, 430.
significant and personal moment, but photography can also be necessary to capturing history and information. For his exhibit, *Forget Me Not*, Geoffrey Batchen highlights the camera as a machine of personal memory often adding memorabilia to the photographs to create visceral reactions. Rather than just seeing an image, Batchen is triggering personal memories for viewers as they engage with the memorabilia and remember scents, textures, movements, and experiences of their own. Rather than leaving the photograph as a descriptive image of a subject at a certain moment in time, Batchen is contextualizing the images within memory and the personal connections a photo can create. That static nature of the photograph poses a problem to ephemeral art, but Batchen’s understanding of the role of memory and his utilization of memorabilia help to deflect this problem. A similar process is done with cultural memory, where photographs are contextualized by personal accounts, written documents, and objects to trigger memory recall when people look at an image from the past.

This project takes advantage of cultural memory, using interviews and historical

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documents to contextualize the photographs in order to create a better experience of the space and time in which these artworks were created.

The archive process needs to capture what is lost in the documentation phase. Photographs capture temporal, spatial, and visual details, which are useful in classifying and recording the records in the archive. A photograph may have significance on a personal level, as the photographer curates each photo and each image is captured for a certain purpose, but it does not add meaning to the archive. Kracauer makes this explicit in his distinction between the photograph and memory, where memory captures the personal significance of a moment, but not the spatial or temporal details. A photograph can index these records, but it does not have the capability to attach new insights or add substance. This is where the curation of the archive or archival process, defined as the actions undertaken to create a collection, becomes more important than what the archive stores. It is how the archive is indexed, what information is attached to the records, and how users interact with the archive that captures the nature of ephemeral art. Each ephemeral art form has its own relevant details to emphasize and contextualize. A single standard cannot exist. The archive
process is situational. For the Berlin Wall, special and temporal relationships are two of the most important details that cannot exist in a photograph.

Despite place being less relevant for digital archives as a unique attribute of archival objects, the conveying of space and placed-ness is key to understanding street art. Street art cannot be read independently of its site because it interacts with space in a way that creates place as a meaningful experience between the viewer, the artist, the space, and the artwork. While a photograph has a spatial representation, the photographer, cropping the subject within a specific location, curates it. This does not represent the Wall because it cuts it down to a manageable size that does not reflect its enormity. One of the Walls most striking features was its magnitude. Artists created works, such as the shadow figure, emphasizing the seemingly infinite continuity of the Wall by creating a work that cannot be seen in its entirety from one vantage point (figure 2). Instead, it sprawls out along the Wall, interacting with the space. While some artworks emphasized the size of the space, others antagonized the space by challenging the Walls authority within the urban space.

The image seen in figure 3 shows a white line cutting through an artwork. What the photograph does not show is the group of five men who painted the
white line, one of whom was arrested by East German border guards, or that they painted the line to destroy the aesthetic value it was gaining as a canvas. 19 As one of the images represented in each project case study, it is important that the artist’s intentions and what they were reacting to is processed with the record. Border Walls have authority. Their powerful presence as a barrier, frequently guarded by men with guns, inspires fear in many. By painting the Berlin Wall, artists took away some of that authority and power. French artist Thierry Noir, who worked on the Berlin Wall throughout the 1980’s, painted the Wall “to show that I am stronger than the Wall; I can paint it.” 20 The artist thought of it “like a delivery.”21 Painting the Walls made it “ridiculous” because it changed the concrete’s function as a barrier into that of a canvas, less threatening and authoritative.22 Keith Haring, a New York-based street artist, said his mural on the Berlin Wall was “an attempt to psychologically destroy the Wall by painting it.”23 Changing the function of the Wall through art was open to all, though some disliked the idea of making it an aesthetic tourist attraction as

21 ibid.
22 ibid.
noted above. Even those who simply tagged the Walls with “bathroom graffiti” showed that they did not fear the Wall and/or that they had authority in the space. They were metaphorically chipping away at the Wall’s power one artwork at a time.

Noir’s statement that he painted the wall “to show that I am stronger than the Wall; I can paint it” is an example of how painting the Wall could be a healing act. In her work “Performance Art”, art historian Kristine Stiles that performance can serve as a healing act in response to traumatic or violent events. The Berlin Wall was traumatic for many, imprisoning the city and imposing on daily life. Painting the Wall was cathartic for many, Noir included, because it allowed them to address the psychological experience of living with this immense obstruction.

While performative elements can be seen as a form of embodied psychological healing, it also creates meaning through the actions used to create the object. For example, Noir’s artworks were very political, though the art objects seem benign. He commented on this in an interview saying, “it was a political act to paint the Wall – even if you made pee-pee on the Wall it was
Every time an artist painted the Wall, it was a statement. Noir painted the Wall many times, covering a number of panels with the iconic faces that give him fame today (figure 4). The work itself may not be thought provoking or blatantly obvious in its commentary, but the actions of those marking the Wall was a subversive act. It was illegal to paint the Berlin Wall, but East German authorities could do nothing about the painting in the West. Noir was reacting to the invasive presence of the Wall the only way he knew how. Artworks are enhanced by the conflicts of the space and painting the Wall becomes a revolutionary act through the performance of painting.

Performative elements can also be seen in the ever-changing visual narrative on the Wall. Destroying the works of others is something that is generally taboo amongst graffiti writer and street artists. However, border Walls are a space where this occurs frequently. Every person has an idea of what the Wall should be and how it should look. As time passes, ideas change and thus the art on the Wall often changes, matching the new ideologies or opinions. The crowded spaces narrate the artistic discussions and broadcast changing ideologies in the space over time. Every painting or scrawling became an

ephemeral artwork because of the Wall’s constant visual and narrative change. The artworks embody a connection in time and space that changes the way people experienced and understood the Wall and its position in the global world.25 This embodiment is an important aspect of the works performative nature that is frequently lost through photographic documentation.

Archives have to be more than just a storage unit to archive performance art. They have to reactivate the records through reenactment, historical documents, and visual networks between records.26 For example, connecting images from the same location to one another highlights the changes occurring on the Wall, creating a sense of continuity that a single photograph cannot achieve on its own. Traces of these performative elements are represented through photography, but the archive has to actively draw them out during the archival process to successfully archive ephemera.

Space, intentions/reacting to the Wall, performance, politics, and change over time all get lost in the static images of photographic images as time passes. Photography can be a useful record within an archive, but how it is classified,  

25 Stiles, “Performance Art”, 75.
ordered, and presented within the archive is imperative. The purpose of this project is to continue to investigate new methods of archiving street art using digital technologies that could encompass all aspects of the artworks mentioned above.

*Analysis of Previous Digital Projects*

In order to do so without repeating previous efforts, an analysis of five Berlin Wall archives and/or exhibits follows. Each project is analyzed with the four questions I will ask of my own case studies as a way of highlighting successful processes and less successful methods that should be avoided. The first represents a non-digital take on the history of the Berlin Wall.

*Checkpoint Charlie Museum*

The [Checkpoint Charlie museum](https://www.CheckpointCharlie.de/) is dedicated to human ingenuity when faced with the Berlin Wall. Founded in October 1962 by Dr. Rainer Hildebrandt, the Museum Haus am Checkpoint Charlie began as an attempt to understand how the Wall came into being. It evolved as people began to lose their lives escaping the Wall, focusing on human rights. Today it remembers those who escaped or died trying by presenting escape objects, mapping the rise of the Wall through historical documents, and works by artists responding to the Wall.
Because of its dedication, this museum has archived historical objects, newspapers, and photographs that reflect the human struggle at that time. While it does not address ephemeral art specifically, the Checkpoint Charlie museum successfully contextualizes its historical objects. Because the objects have a specific place in time and a single location, this static and permanent representation works. It exhibits historical moments or events and parallels them with modern human rights struggles in order to keep the past events relevant to a modern audience. This approach would be unsuccessful for ephemeral art, particularly street art because the frequent changes of time contradict the permanency of this exhibit. One of the disadvantages with this exhibit, a problem with many museums, is that the audience is limited. The content is limited to those who can access the space.

The digital archive provides easy access to a large corpus of visual records, but it does not necessarily allow a user to experience what they are seeing. For example, a computer screen can be very misleading when it comes to scale and texture. This is why finding the right digital tool to archive ephemera is invaluable. Digital archives do not have to be lists of images. They can be sources of reconstructed, realistic replicas of lost art or interactive exhibits.
Ephemeral art, street art particularly, relies on experience and interaction with the audience, artist, and space. These intangible details are difficult to record in a photograph making digital technologies a new way of addressing the challenges ephemera poses to the archive. Many digital projects have emerged to remember the Berlin Wall. Some focus on digitally reconstructing the environment while others use the modern cityscape as a window to the past. The following projects represent four different approaches to archiving and exhibiting ephemeral art that will help shape my own decisions and methods in the case studies.

**Matthias Hoffman**

Matthias Hoffman documented the Wall from 1984 to 1987 photographing every inch before turning away and focusing on daily life in West Berlin. His digital database, [mauerfotos.de](http://mauerfotos.de), is accessible online in English and German and has nearly 500 black and white photographs that are searchable by theme, district, and street. Under the “Select a Picture” tab, visitors can view the photographs and read the artists memory of that shot (figure 5). People can submit their own stories to Hoffman and his team and, if they are deemed true or relevant, they are added to the image database. Under “Archive of Memory”, users can read the various memories shared by others regarding Hoffman’s
images. Essentially Hoffman and his team have created an archive that uses
crowd sourcing to add data, in the form of personal stories, to the image
database. Memories are ephemeral, often changing over time and disappearing
all the time. This archive works to capture a collective memory of living with the
Wall for future generations to have an opportunity to understand the experience.
As an ephemeral archive it does a great job of transforming images from
anonymous instances to representations of daily life that impacted at least one
person. Furthermore, it creates a place where people can identify with one
another as they recall similar memories. Missing from this archive, which could
make it more effective for an outsider and future generations, is a map of the
images. Hoffman identifies the streets for each photo, but a visual representation
of the space would elevate the archive.

Timetraveler

One project that focuses on the spatial contextualization of the Wall is
Timetraveler app, created jointly by Metaio and Timetraveler Augmented, which
provides geo-located media to appear through a smartphone or tablet. The user,
with app downloaded, can explore eleven historical sites along the Berlin Wall in
modern day Berlin. For the app to work as intended users must be in the city
and travel to each site. The phone or tablet uses its GPS to recognize the location and the AR (augmented reality) app pulls up the content. Some AR programs allow users to change their GPS location, so it may be possible to bring the content to any space by switching the GPS location to Berlin. However, this changes the experience. The content is framed by its original location, contextualizing it within the cityscape, albeit a modern one. This gives users a sense of the relationship between space and significant events. It successfully animates past events and contextualizes the space, which are two details needed when archiving ephemera. A potential problem of using an AR app as an archive is its reliance on accurate GPS location. Content cannot be rendered without it and as the archive is only viewable at specific locations, failed location makes the content inaccessible. Furthermore, time is a low priority in this project. While content may be labeled with a date, using specific locations in a modern landscape skews time. A different platform could address both.

“The Wall” by Asisi

Another approach to the Berlin Wall focused on a more personal remembrance of the Wall. Iranian-Austrian artists Yadegar Asisi, who painted the Wall and lived in Kreuzeberg during the 80’s, created a 360° panorama of the
Wall at Checkpoint Charlie that compresses time and space into one single experience. The stitched together images show mundane, everyday life moments from East and West Berlin, industrial materials and the horrors of living by the Wall. Viewers enter the space on a centrally located platform with sound effects and music by composer Eric Babak. Outside the gallery, hundreds of photos introduce the history of the Wall. Asisi’s exhibit addresses ephemerality in an interesting way. By compressing time, he emphasizes the changes occurring over time and the life happening around the Wall. Though the image remains static, the obvious juxtapositions of humane and horror, East and West, life and industry, makes it clear that this encompassing photograph represents layers of time in one space. Other than the photos outside the project is not strictly contextualized within history. Rather it focuses on the experience of the Wall from everyday tasks to the horrors of desperate and failed escapes. This focus on human interactions with the Wall is something an archive of the artworks should represent as well.

**Virtuelle Mauer**

Creating an experience driven by historical data is another approach. Tamiko Thiel and Teresa Reuter created an interactive virtual reality, *Virtuelle*
Mauer/Reconstructing the Wall, to “investigate the impact of the Berlin Wall.”27

Users operate a joystick, within an exhibit space, exploring a section of the Wall between border crossing Heinrich-Heine-Strasse and Engelbecken Park.

Archival materials (sound, news clippings, video, present day interviews), characters, scenes, and time travel are interactive allowing every user to build their own experience. Most of the reconstructed Wall dates to the mid-1980’s, but time travel can take people back to the 60’s or forward to present day. Thiel and Reuter’s virtual exhibit tackles experience, visual culture, history, storytelling, and change over time all details needed to archive ephemeral art.

Spatially, Virtuelle Mauer/Reconstructing the Wall gives the user a detailed reconstruction of the urban environment, really drawing them in to Berlin circa 1985. Like Asisi’s panorama, it creates an experience. Users are free to explore the virtual world, encountering narratives as they roam and developing their own experience as they engage with the environment. As an exhibit it is highly successful because it engages viewers and provides multiple narratives.

While *Virtuelle Mauer/Reconstructing the Wall* represents the many capabilities of an interactive exhibit or virtual reality experience, the scale of the project complicates its aim. Navigating the space can be overwhelming and requires knowledge of Berlin and the Wall, though no map is provided. The exhibit is not historically accurate even though it is presented as a reconstruction of an area of the Wall. This is problematic in many experience based virtual realities. The medium allows for realism by being detailed, but it is not real. While it can simulate a historical event or place, it should avoid presenting itself as historically accurate. For ephemeral art, every reconstruction is a reproduction and thus not an exact replica of the original. *Virtuelle Mauer/Reconstructing the Wall* draws on a strong archive and some of the archival material is represented in the virtual world, but much of the research driving curatorial decisions is not expressed. For my project, I am focusing on the fine line between realism and departing from that realism to create or curate an experience that simulates an experience or tries to reproduce it as closely as possible. Any attempt at hyperrealism is misguided because it places emphasis on historical realism rather than emphasizing historical details as the foundation of the project.
Finally, the project deals with changes over time, but does not focus on ephemerality. There are moments when changes are acknowledged, but the idea of loss and the process of disappearing are skipped over during time travel. For example, the images on the Wall present an aesthetically pleasing mural created by images from multiple years. By stitching the image together like this, the viewer does not get the sense of change, the chaos of overlapping layers, or the different forms of creative expression painted on the Wall.

These digital archives and exhibits evidence the many ways to successfully represent space, time, relationships/interactions, and experiences. With this analysis in mind, the following list encompasses the advantages, or ways to correct problems, of the above digital projects as archives or exhibits:

- Create or simulate an experience by using ambient noise
- Emphasize memory, creating meaning by making it relatable
- Avoid condensing time by highlight ephemerality
- Create a space that emphasizes the urban environment
- Contextualize with historical photographs and events
- Animate the images to undo static nature of photography
- Keep the archive accessible, and,
• Clearly distinguish between historical reconstruction and historical simulations based on factual data

The projects discussed in the next chapter strive to convey all of these qualities in order to better archive and exhibit ephemerality.

Context is an important part of street art. Waclawek describes it well when she claims, “…street art challenges the art system, consumer culture and media-saturated urban environments, while promoting freedom of thought and expression and often advocating social consciousness.”

There are many relationships and ideologies embedded in a work of street art. To archive it requires more than just a visual record. This project aims to create a digital representation that contextualizes all aspects of ephemeral art. It will exhibit ephemeral art spatially and temporally, capturing the experience of painting the Wall and reacting to the visual narratives it portrayed. The underlying data will be available to the user through a Palladio image database and an interactive Neatline map. Each tool archives one or two of the relationships that define street art, but like their digital predecessors, they cannot stand alone. Used within a virtual exhibit, the gallery and maps provide the data behind the

curation, grounding the exhibit in history and contextualizing the visual records.

Drawing on the strengths of three different digital tools produces a stronger
digital archive that effectively addresses ephemera.
Digital Archives and Berlin Wall Exhibit

This section of my thesis, which analyzes the “practice component” of my research, draws upon the arguments discussed earlier about the archive as storage, media, and process. It compares storytelling methods, the ability of each medium to perform ephemerality, and the overall success of my projects, as archives and an exhibit. Across the three digital platforms I ask the same questions I used to analyze previous digital work that aimed at archiving and exhibiting the street art of the Berlin Wall. All of the data for my project came from the same database in order to keep cross-comparisons as consistent as possible. The two archives, using Palladio and Neatline, emphasize different archival processes, which result in different stories emerging from the archives. The interactive exhibit uses these different narratives to curate the artworks and narratives used in the virtual gallery. All focus on re-contextualizing the history and details lost through documentary photography as mentioned in the earlier chapter. These projects and the comparison of their effectiveness all lead to the overarching question: How can digital technologies change the way we archive, experience, and exhibit ephemeral art?
The Common Database

The flat file database was compiled after preliminary research on ephemeral art and the history of the Berlin Wall. Once I had a strong idea of the history of the space and the history of graffiti, I began to gather photographs of the artworks on the Wall. These initial photographs formed the basis of the classifications system. Each column heading was clearly defined to keep data entry consistent (See Appendix A.1). The collective database has 26 column headings that covered every detail that could be gained from the photograph from nearby landmarks that may help identify the artworks original location to the purpose behind the photograph being taken (See Appendix A.2). For each project, columns were cut and data was re-arranged to create a spreadsheet that met the specific needs of the digital platform being used. Despite these manipulations, the data for each project consists of the same information. Nothing was added to one spreadsheet record without being added to all. This was important in creating a strong foundation that could be used across many platforms. The following archives represent visuals of this database.
**Palladio: Data Visualization**

Palladio is a web-based visualization tool under development in Stanford’s Humanities + Design lab that allows data to be uploaded from spreadsheets to create maps, graphs, tables, and galleries. The data is uploaded on Palladio’s start page and then classified as text, dates, coordinates, numbers, or URL’s, which can be changed should the program assign the wrong type (figure 6). It is then ready to use in any of the four visualizations Palladio offers. Each visualization tool can utilize facets, timelines, or timespans. Facets mimic the “elastic list,” which allows multi-dimensional data to be searched and narrowed down using different characteristics.¹ The timeline and timespan allow users to filter data relating to time. The visualizations, while interactive in the data phase, can only be shared as static visuals. While the static visuals are not ideal, Palladio’s developer interface creates an archive that highlights the relationships the photographs lose by creating networks based on metadata uploaded with the images.

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Palladio’s Archival Visualization

Though Palladio is not publishable as an interactive tool, it is easy to imagine how users would see and operate the tool. The developer interface and user interface would be nearly identical with the only difference being the ability to alter the original data on the developer’s side. The user would open the project on a webpage with the data already loaded and organized. In the gallery view, they would see all 100+ images listed with a descriptive title, year, and brief description of the image (figure 7). The description emphasizes the details of the images as they are shown as thumbnails, with the possibility of being linked to the original images. The images are ordered by their file names, which represent the order they were found, scanned, and uploaded. This randomization avoids curating a narrative and biasing the users visual analysis and search experiments. At the bottom of the screen are three filters: two facet filters and one timeline (figure 8). One filter allows users to search who (artist), what (subject tag), when (year), where (location), and how (media), while the other explores a history of graffiti on the Wall using graffiti (graffiti or no graffiti), type of graffiti/street art (pictorial, NYC, bathroom), language, and the identification of the subject matter (political, personal, social, cultural). The
timeline examines this last category, identification, over time. Any combination of these classifications can be selected. For example, if a user chose the district of Kreuzberg, the other classification fields would refresh so that only images from Kreuzberg were represented in their counts leaving the artist(s) listing as: 33/92 unknown artists, 3/7 by Noir, 1/2 possibly by Noir, 1/1 by Gordon & Rudi, and 1/1 possibly by Rulky Billy. The search can be further refined by choosing other filters until only one image was left or until a group of images remained for comparison. The filters can be completely cleared, and the process repeated, or deleted one at a time, to alter the search.

In the graph tool, these same searches can be made creating node-link diagrams (figure 9). Unlike the gallery view, users cannot see the images. As a representation of a visual vocabulary, the diagrams are a way to visualize the connections made in the gallery view. They support the relationships established in the gallery view by providing visual networks of data. For example, if a user chooses identification as a source and artist(s) as a target, they will get a diagram that highlights the inspiration and/or message the artist was drawing from/portraying in their work. In this visualization Thierry Noir’s artwork is connected to both social critiques and personal/creative expression,
information that helps users understand his relationship with the Wall and his purpose for painting.

**Palladio’s Archival Narratives**

For this project, I focused on Palladio’s gallery and graph, specifically a node-link diagram, to recreate the connections between the artworks and their contexts. Doing so creates an archive that highlights the visual vocabulary of the Wall. The visual vocabulary refers to the way the Wall is classified into subjects that represent the various relationships happening. It stores images, but it also highlights the connections between them. To return to the example of Thierry Noir’s artworks, the connections are literally drawn between the artists name and the type of artworks he is creating. Palladio does not necessarily have all the answers, but these visual connections are the beginnings of questions and further research. The imagined audience is meant to observe, analyze, and discover connections and narratives through a user-friendly and visually appealing archive. The visual connections or networks are a starting point for potential research.

Palladio creates a visual database that classifies and orders images as any traditional archive could, but uses its digital platform to create an interactive
search feature that forces the user to actively engage with the archive in order to learn. In doing so, it adds meaning to the images because it builds correlations and/or connections between the photographs. It begins with a vocabulary used to describe and classify the Wall. This could be limiting if Palladio did not have a multi-dimensional search tool. However, the multi-dimensional search tool creates unique groupings of images that change as the filters are combined in new ways. The artworks shown when an artist is chosen are different than those shown when a location and year are picked. This user choice pushes the visual vocabulary. Rather than pigeonholing each photograph into one category, the use of multiple categories creates a flexible and extensive vocabulary. Combining the categories develops new terms that can be used to express the different narratives happening on the Wall.

The archive I created in Palladio, as it is now, creates a visualization of the flat file database. It takes the data and transforms it into a visual learning experience. It attempts to objectively illustrate the narratives of the Berlin Wall by presenting the images with minimal analysis and diverse categorizations allowing networks to form through a search and discovery process. It clearly highlights the relationships between artworks, which is different than most
image based digital archives. Generally images are presented and the tags can be found and used to locate similar images to view individually. In this archive, the tags group images together. Images can be looked at individually if the filters are narrowed down, but the digital platform encourages looking at the images collectively and thematically. It does not rely on a list of images that fit a tags description, but presents the images to the viewer in the same space so that users have the ability to judge the images themselves. Though it has some limits, such as the generalized tags, the Palladio archive offers a new way of approaching visual analysis. For ephemeral art specifically, it re-contextualizes the narratives and relationships lost with the physical works. Rather than letting time lose these details, the Palladio archive keeps these at the forefront of each photograph.

**Affordances of Palladio**

A significant problem in many archives occurs when classifying the data because it can reduce data to a basic level. Doing so strips off all detail and makes a decision about what information is relevant and what can be lost. This does an injustice to the material being stored and in a digital archive particularly, does an injustice to the capabilities of digital platforms. While these categories
are advantageous in creating visual networks, some of the classifications lost detail when structured for Palladio’s requirements. Many of the classifications followed traditional systems of art historical classification (e.g. year, artist, location, media), but some of the subject tags proved complicated to standardize without losing detail. Both required a level of curation in forcing the data to fit into Palladio’s data structure. The original data sheet had multiple tags, which I created from a simple visual analysis that asked, “what can be seen in this photograph?”, listed with coma separation. For example, the Berlin Joker was tagged as skeleton, face, and tie because it shows a smiling skull with a tie surrounded by the words “Berlin Joker” (figure 10). Skeleton was used rather than skull because it became clear to me after spending time with the data that there were many skeletal creations and facial representations. Skull represented both of these categories, so breaking it down into face and skeleton gives it common tags that will match with more works. The tags I created could be uploaded to Palladio as a string of comma separated words, but because each work is unique and the image analysis followed no guidelines, no tag matched another. In other words, it was impossible to group figural images or cat images together using the filters. In order to fix this problem, I first tried to use
Palladio’s table extension feature to add a secondary table to the subject column in the first data sheet. This required reducing the subject tags to a primary and secondary subject matter based on what the eye acknowledged first, already a problematic and very subjective distinction. This misrepresents the images because it boils the data down to a very basic level.

In order to combat this problem, I hoped to use the extension tables to create two subject tag filters. Unfortunately this did not work because the original table and extension table were distinct entities. Choosing figural as a primary subject matter automatically filtered the secondary subject matter to only works with a primary subject matter of figural. If a work had animal as its primary subject and figural as its secondary, it would have been disregarded by Palladio’s filtering system. This means Palladio’s filtering system is hierarchical and, once a classification is chosen, can only be searched within the results of that choice. Because of this, every artwork had to be reduced to a single subject as a representation of the work’s theme, which significantly lessened the comparisons that could be made. The hierarchical nature of Palladio’s filtering refines the information, but does not necessarily show unanticipated connections. This is a common problem for classification systems because it creates a new way to
organize and refine data, but does not necessarily add more meaning. In a future iteration of the project, the data could be restructured to create more classifications that better cover the kinds of subject tags noted. For example a column could be created for figural works and populated with a yes or no. This would create many more filters, which would overwhelm the screen, but it would open up comparisons. For this project, the loss of comparative material through the tags emphasizes visual analysis. The viewer has to look at each image in order to see all of the details, creating a more engaging experience and inspiring new analyses.

Palladio’s digital platform makes it accessible online, bringing the archive to the user and therefore broadening the audience. Its simple design creates a user-friendly and aesthetically pleasing interface that most anyone can learn from. Its reliance on a search and discovers method engages viewers and the simple terminology makes it a useful tool for researchers to find images and casual browsers to engage with artworks. A future iteration of the archive could include a submission page from which others could upload their own unique images and populate the data classifications. This would create a larger database and more networks adding more context to the Berlin Wall. My implementation
of Palladio is simply a sampling of what the platform could do with a large image database. For a future iteration, I would also link the thumbnails to a larger version of the image, pending permission, and link to research notes about each image. Again, this is something that could be done collectively, as a “crowd-sourced” project. Questions about an images relationship to another work or place could be asked and answers or speculations recorded and debated. This collective portion of the Palladio project would be similar to Matthias Hoffman’s project, “Archive of Memory”, and store information that is both scientific, what you see in the reproduction, and meaningful, how it connects to artworks and people.

**Neatline: Mapping Data**

While Palladio highlights relational data, it does not provide a sense of space. The location tags give a place, but they do not convey what the space looked like, what the artwork shared the space with, the accessibility or visibility of the space, and many other geospatial details. Neatline highlights these characteristics by creating an archive that is stored on a map.

Neatline is an Omeka tool that can be used to curate stories through maps and timelines providing spatial and temporal interactions. Items, data entries,
are created in Omeka, an archive creation tool that uses Dublin Core standards (See figure 11 and Appendix A.3). These items are linked to polygons drawn on a map in Neatline, which allow users to bring up the entry in the map view to learn more about a specific work. I chose to use this program over other mapping programs, such as Odyssey JS or Cardo DB, because Neatline does not require coordinates to plot images on the maps. Many of the locations for the artworks are merely general and give a sense of where the artwork fell in relation to the cityscape, not a precise location. This makes the use of precise geolocative points unrealistic and misleading. Often times, digital representation and reconstructions are viewed as realistic replicas, but this is not so. They are reproductions, which can never be exactly the same as the original. The timeline feature, which visualizes change over time on the map, is an additional feature that made Neatline a good fit to represent the geospatial and temporal data lost when documenting ephemeral art.

**Neatline’s Archive Layout**

Users can explore the Neatline project on a webpage, which will open with a map taking up most of the viewing pane, a timeline running along the bottom of the page, and waypoints, or reference points, to the right (figure 12).
The timeline defaults to 1980, but users can immediately jump to any year they want to view between 1980 and 1993. The default map shows the Wall, with each sector distinguished in a different color, and important buildings such as Martin-Gropius Bau, Checkpoint Charlie, and the Brandenburg Gate. Sliding the timeline calls up images from that year in their relative locations along the Wall. Thumbnails represent the artworks so users can make comparisons and observations about sections, districts, sectors, or the Wall in its entirety. As the years pass, these images disappear and appear all over the Wall.

Many of the images have unknown locations and are therefore represented by large polygons. Neatline requires a spatial designation for a record to be mapped, making unknown locations a problem. The large polygons attempt to give a general idea of where the work was, in this case, somewhere along the Wall. For each year, viewers will see a variety of these grouped artworks from unknown locations. Some belong in a specific district and are mapped only in that area, while others could be anywhere on the Wall and are represented as a line that follows the shape of the Wall. Unlike the artworks that can be mapped as their own entity, the grouped works cannot be represented by
thumbnail images. Only by choosing the polygon can users see the images in the item entry.

Should a viewer want to know more about an artwork they can choose any mapped image or polygon to bring up the item entry from the Omeka database. The entry provides information that was uploaded directly from the spreadsheet, but organized according to Dublin Core standards. I had to choose what data from my database best matched the Dublin core classifications but maintained the same information relayed in Palladio (see Appendix 1 for guidelines). Here viewers can see a larger thumbnail of the image and find basic information about the artist(s) or type of artwork(s). The grouped images contain data from every artwork attached to the polygon. Because this could be confusing, the titles of each artwork can be linked to a separate entry for that artwork alone. These entries appear as pop-up boxes on the left of the screen and can be closed at any time or left as the map and timeline are further manipulated allowing users to compare it to other works or think about it in a different location or time period.
Neatline’s Archival Narratives

As an archive, Neatline visually stores geospatial and temporal information. The records exist within Omeka, but are mediated through a curator, in this case myself, in order to present the data in a new way. It is the archival process, which occurs when the information is plotted in Neatline, that gives meaning to the data. The works along the Wall give users a general context of the original space. This highlights new spatial questions such as, why were areas like Potsdamer Platz and Checkpoint Charlie heavily painted and the entire French sector less so? When looking at the map between 1980 and 1989, it is clear that very few people were either 1) painting in the French sector or 2) photographing the French sector. A close look at the French sector shows dense wooded areas along the Wall, which means artworks would have been less visible. For many the point of painting the Wall was to deliver a message and perform an act of rebellion, making visibility an important part of their work. Potsdamer Platz is the opposite. It is located in a densely populated urban area and was one of the stops tour buses made along the Wall. The answer to the question is likely related to the visibility and exposure of the artwork with Potsdamer Platz being more accessible and popular with tourists.
The timeline addresses the temporal details of ephemeral art. Moving the timeline is an interactive way of viewing the information being presented on the map. It shows how artworks changed over time and, on a broader scale, how areas of the Wall changed over time. Checkpoint Charlie highlights this well, showing Noir and Bouchet’s Statues in the first half of 1986, Haring’s mural and the vandalism of the mural in the last half, and English’s mural in 1989. Other “hotspots”, such as the Wall near Martin-Gropius-Bau, Potsdamer Platz, and along Bethaniendamm/Adalbertstrasse, also show large groupings of artworks over the years. These changes emphasize the constant disappearance and change of artwork on the Wall and create the experience of ephemerality.

**Affordances of Neatline**

While the disappearance of ephemeral art and its relationship to space are important to highlight, Neatline creates many problems in the attempt to do so. While images disappear as time progresses, users can move backwards in time to re-examine lost artworks. This weakens the ephemeral simulation because, as Peggy Phelan writes in *Unmarked*, performance art cannot be repeated. If it is
repeated it is not the same.\textsuperscript{2} The same is true for ephemeral works which are meant to disappear. If Neatline created a plug-in that only allowed the timeline to move forward and never backward, then it could better address ephemerality.

The restrictive structure of the Omeka database is another problem. It relies upon the logic of the classificatory archive of individual objects. The information is basic and does not highlight networks or relationships in the same way that Palladio does. The simplified data from the spreadsheet, which worked well for Palladio, does not have enough detail within Omeka. In a future iteration of the project, this could be avoided by creating items for important political and cultural events to support the narratives created by the artworks. These items could be highlighted using the Waypoint feature, which would bring them to the users’ immediate attention and provide a consistent source of historical happenings to contextualize the map.

Though it has its problems, the Neatline archive is valuable because it represents a curated archival process based on space and time, two essential elements in attempts to archive ephemeral art. These two characteristics are captured in a photograph, but as static and partial representations. The Neatline

\textsuperscript{2} Peggy Phelan, \textit{Unmarked: The Politics of Performance}. 

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archive builds a bigger picture in which the space can be seen relationally, representing the Wall in its entirety as well as smaller sections, and temporally. The connection to Omeka also means the database is present to clarify any confusion regarding spatial accuracy. It also gives the user the opportunity to see the archive in two different ways and through two different archival processes: one curated spatially, the other to Dublin Core standards.

The Palladio archive provides a better space for users to create a relational archive, but the Neatline archive can be used to directly address the issues of space and time. Both archives have strengths and weaknesses and highlight different aspects of ephemerality, though neither captures it in its entirety. Combined, they would address nearly everything photography loses when documenting ephemeral arts. The exhibit uses the strengths of these two archives to address ephemerality. Its structure and story are directly derived from the narratives highlighted in one or both of the archives.

**Unity: The Virtual Exhibit**

Unity is a 2D/3D software package that can be used to create games and interactive experiences (figure 13). It supports various kinds of multimedia content and users can code actions to be executed in the game environment. This
software offers a variety of camera perspectives including a first person perspective, which places the user directly into the virtual world. I chose to use Unity for the virtual exhibit because it offers a place where users can explore on their own and at their own pace, supports multimedia content, and creates 3D immersive environments that simulate real world environments. The Berlin Wall exhibit creates a space in which viewers can suspend reality and imagine themselves viewing the art on the Wall. It takes away from the static nature of a photograph by re-animating the works. In media theory, animation reflects liveliness in both reality and appearance. For Jackie Stacey and Lucy Suchman, animating requires entering a mindset that can see beyond reality and “enlivening objects with the capacities of their creators.” In this exhibit, “the capacities of their creators” is represented by Unity’s ability to create a first person experience, create life-sized walls and artworks, and use moving textures.

The exhibit creates an experience. The Berlin Wall elicited visceral reactions from those who encountered it. The exhibit underscores the burden of living with the Wall, the enormity of the artworks, the frustrations of ephemeral

art, and the context that inspired many of the artworks. To create this experience, artworks are exhibited on a 3d digital representation of the Wall, appropriately scaled and textured. Users navigate the walls in order to view different artworks and often find themselves frustrated by the wall as it obstructs works in the distance. Areas that show documented change over time have video textures animating the transitions. Disappearing walls represent the ephemerality of the art and the actual Wall as both disappear when the Walls fall. Relevant buildings and structures create an urban environment with ambient noise adding to the realistic nature of the experience. Each of these elements enhances the viewer’s immersion into the space, which creates the viewers experience.

**Curating the Unity Exhibit**

Creating the space for the exhibit required multiple designs. Rather than creating an exhibit that could be seen in the real world, e.g. four white walls, the virtual exhibit represented a chance to think about highlighting ephemerality specifically. Initially, the plan was to create an infinite wall that would scroll by repeating images on a loop or in a randomized order. This idea would emphasize different narratives and gave a sense of the overwhelming and
encompassing nature of the Wall. However, it would not represent ephemerality well as viewers could move back in time. The next exhibit prototype was a pentagonal space where users would be enclosed by the wall. Time would be highlighted in this exhibit with artworks changing over the years on a constant loop. The viewer would be rewarded by watching one section at a time. Narratively, the space would have been broken into the sectors of the time (French, British, and American) and the different stories each one told. This prototype exhibit emphasized ephemerality best, but created a space that could be mimicked in any gallery space with projectors and a bit of gray paint. While potentially compelling, the goal was to create a project that took full advantage of the unique affordances of the digital medium. Furthermore, I did not have enough data to support this prototype. The French sector was less populated with street art and the documentation represents that with very few photographs of the space and many from the same year. This would have left a large portion of the exhibit bare, which would have highlighted gaps in the archive, and created a less compelling experience.

I finally settled on a representation of the space that was inspired by a combination of the previous two prototypes—the continuity of never ending
walls and the enclosures narrative and spatial elements—and the Newseum’s presentation of eight sections of the Berlin Wall as one consecutive strip that looms over visitors. The Newseum’s exhibit is the longest reconstructed strip of Wall outside of Germany with six sections of the Wall (three panels are consecutive and show Noir’s yellow faces) displayed before a watchtower. This idea, that one could mix and match different panels from the Wall, became the starting point of the exhibit I implemented. It evokes current methods of preservation — singular concrete panels of the Wall are scattered throughout the world — and introduces a virtual space to contextualize the experience of viewing these works of art in a single space.

Unity’s Exhibit Design

In this final iteration, the viewer begins at an introductory wall, which sprawls outward into the distance giving the appearance of a barrier. Looking around, the viewer sees important historical buildings, such as Checkpoint Charlie, watchtowers, and open sky. The introductory panel explains how the exhibit works, how to navigate the walls, and what the viewer will see. It presents historical photographs and maps to contextualize the exhibit and emphasize that this is not a historical reconstruction, but a historical simulation.
of the Wall. The exhibit is broken into three sections: narrative, time, and space. Each represents a different curation of the same works of art. Often time ephemeral art archives can only represent one aspect of ephemeral art. Rather than fight this choice, the virtual exhibit embraces all three frameworks, isolating each, but keeping the three within the same virtual space. Repeating the images creates a consistency that allows the user to become familiar with a smaller sample of artworks. This familiarity allows them to recall seeing the image in a previous exhibit and add to their understanding of how the work functioned. Each section is distinguished from the other by a barrier Wall with an introduction panel that provides data from either the Palladio or Neatline archive as evidence for the curatorial decisions made in that section.

Moving around the introductory panel, the viewer is confronted with the first stretch of freestanding wall segments representing Checkpoint Charlie (figures 14 and 15). The Wall near Checkpoint Charlie, an important border crossing station, was a popular place to paint. As I described earlier, NYC street artist Keith Haring was invited by the Checkpoint Charlie Museum to paint a mural in 1986, covering a mural created by Thierry Noir and Christophe Bouchet, creating a brief confrontation between Noir and Haring. Ron English,
another American street and pop artist, would later add his own mural to this stretch of Wall. This panel will use a video texture to reveal the many layers of paint from Noir and Bouchet’s liberty statues, to Haring’s mural, to the graffiti that soon vandalized it, and ending with English’s mural. Like all of the artworks used in the exhibit, these are scaled to size\(^4\) and textured to mimic the rough concrete surface of the Wall. Using realistic scale and texture replicates the original artworks, breaking from the flat texture and ambiguous scale represented in photographs. A clickable pop-up box accompanies the wall segments explaining the curation at Checkpoint Charlie and contextualizing the works and the artists. Pop-up boxes are used rather than traditional wall texts because the Wall had no labels or introductory texts explaining what the viewer was seeing. Using pop-ups allows users to have the experience of analyzing the art without being distracted or overwhelmed by wall text. Instead it becomes an opportunity to learn more or be guided through the space. These accompany all sections of the exhibit.

\(^4\) This was calculated using rounded measurements of the concrete slabs used to construct the Wall (4 feet wide by 12 feet tall) and the number of panels the artwork covered.
To the right, and just visible beyond the Checkpoint Charlie wall, the viewer walks toward a wall covered with faced and a menacing fish, works by Noir and Bouchet respectively (figures 14 and 16). The work of these two French artists was prevalent on the Wall; they frequently collaborated on large murals and drew inspiration from popular culture. Noir would eventually adopt a distinct style and practice that highlight the concrete slabs of the Wall while Bouchet would use existing graffiti to create large murals that hid the Wall under layers of bright paint. Like Checkpoint Charlie, and all of the wall segments, this section has pop-up text explaining the history of the two men, the reasons they painted the Wall, and the tricks they learned while painting an illegal surface guarded by Allied army troops and watched by East German soldiers from towers.

Leaving Noir and Bouchet, visitors move left to a wall covered in popular culture references (figures 17 and 18). Popular culture was an important influence for Noir and Bouchet as well as others. Music, television, and books represent just a few examples of the references made to popular culture on the Wall. As there were many references made to popular culture only a few will be shown on the wall segment. The others were added to the pop-up text box,
which will also give brief descriptions and links to what the artworks are referencing.

The fine arts were also influential to those painting the Wall. Off to the right, viewers will see the wall segment with direct references to the art world, highlighting references to the artists Pablo Picasso and Joseph Bueys (figures 17 and 19). Like the popular culture references, the art history pop-up will include images of art inspired street works and references to the artworks of the artists being referenced. This section is used to contextualize the happenings in the art world from 1980 to the fall of the Wall.

Just beyond the art-inspired wall segment will be a segment dedicated to the role of the artist and their motives for painting the Wall (figures 17 and 20). Viewers encounter the faces of a man and woman that show evidence of vandalism. Vandalism of artworks was common on the Wall as people left their marks. Rather than allowing the work to remain vandalized, the artist, or perhaps a passerby fond of the work, returned and attempted to restore the original artwork. A video texture is utilized to show this process. Documentation of artists’ reactions to painting the Wall and a broader look at graffiti artists’ practices contextualize this section.
Some artists, though anonymous, had evident styles. The next wall segment represents a section of a mural more than 100 feet long painted near the Martin-Gropius-Bau building (figures 17 and 21). The pop-up text will discuss the references made in this mural from “Gott Will Cash” to Orwell’s *1984*. It also exhibits the many photographs taken of this mural to compare the experience of seeing a whole reconstruction versus multiple disjointed pieces. Unlike previous artworks, this work is explicit in its social and political commentary making it a great segue to the next section on political artworks.

Anything painted on the Wall was political, but these works highlight blatant references to political movements and governments (figures 22 and 23). The viewer sees an advertisement for a youth organization, dictators, military figures, racist remarks, and anti-American sentiments. A timeline of important events and a list of key figures accompany the political artworks.

While many took to the Wall to deliver a message or perform an act of rebellion, some disagreed with the Wall’s colorful appearance. They felt decorating the Wall gave it more permanence and camouflaged its function as a barrier. For this reason, as alluded to in figure 3 from the previous chapter, five men painted a white line through the Wall from Mariennenplatz to just south of
Brandenburg Gate before East Berlin guards caught and imprisoned one member. They wanted to show the world that the Wall was not just a canvas. Their story, as well as a look at the function of the Wall before it was a canvas, contextualizes this section. The panels show a white line cutting through a work of art obscuring many details and essentially ruining it aesthetically (figures 24 and 25).

The next section, just behind the white line, has letters and prose that directly address the Wall (figures 24 and 26). Many wrote directly to the Wall referencing its function as a barrier. Needing little context, these messages are transcribed in their original languages. The viewer then walks to the next section, which presents what looks to be a single stretch of wall creating a barrier. Here they are asked to turn and look back on the walls they have passed only to find that they are no longer there (figure 27). Should the viewer look back at any point in the exhibit, they will find that the walls they have passed have disappeared representing the unstable nature of ephemeral art and ultimately the Wall itself. Invisible barriers will also prevent them from moving

—

5 Philip Oltemann, “A line in history: the East German punks behind the Berlin Wall’s most radical art stunt,” The Guardian, 3 November 2014.
back to view wall segments they have already passed, further frustrating the viewer. Turning back to the barrier, the viewer reads about the fall of the Berlin Wall and is presented with an option: they can exit the exhibit, and therefore the experience, or they can continue on to see the art from the exhibit re-arranged chronologically and then spatially, as discussed earlier.

Continuing on, the viewer walks through a timeline of art seeing new combinations, which allows them to think about the art in a new context highlighting the importance of time. These Walls, representing 1981 to 1989, will be contextualized with brief timelines of events significant to the Wall. Like the narrative exhibit, this ends with an option to exit the experience or continue on to the spatial narrative. The spatial narrative arranges the works by district if known with one section representing works that are unknown. It is contextualized with maps and notes regarding important landmarks and border crossings. When the viewer completes their tour and reaches the final section, the immersive experience ends.

**Unity’s Narratives**

This Unity exhibits is data-driven, but not directly from the spreadsheet. Palladio and Neatline uploaded data directly from the spreadsheet, but the
virtual exhibit does not have this function. Instead, it relies on the data mediated by the two archives visualizations, Palladio and Neatline. As discussed earlier, exhibits are meant to serve an educational purpose while also creating a meaningful experience. The archive, while serving as a source of knowledge, is supposed to remain objective and attempts to be more scientific in its creation and presentation. The spreadsheet serves this educational purpose well, but is not as strong as a meaningful experience. Using the results of the Palladio and Neatline archives means that the exhibit is taking advantage of already-mediated information that is creating meaningful relationships either spatially or through network diagrams. It elaborates on these narratives as outlined below.

The narrative portion of the exhibit was created using the Palladio archive. As discussed earlier, manipulating the filters highlighted trends and certain stories jumped out of the image database. The networks and relationships created by the Palladio archive are expanded upon in the virtual exhibit. I used the findings from Palladio as the starting point for each wall, asking questions to push the relationship it was highlighting. For example, God Ble$$ 1984 has references to meat, beer, Orwell’s book 1984, and money. It raises many questions such as, is the work referring to East Germany’s restrictive
government and the constant surveillance from border guards? Or is the artist criticizing West Berlin and the census of 1983, which contained questions too personal for residents to comfortably answer, leading to a boycott of the census? These questions can be difficult to definitely answer and often have no single interpretation. The exhibit emphasizes multiple interpretations and supports the interpretation with information found in the pop-up text.

While the first section of the exhibit focuses on curated stories of the wall, the second emphasizes temporal narratives. In this section, viewers will see one long wall that changes year by year between 1983 and 1989. The animated texture moves chronologically, repeating the images seen in the narrative section, but only show through once, forcing the viewer to take in as much as they can before it all disappears for good. Viewers must depend upon their memory to recall images from previous years. This is where a digital visual can be beneficial. Looking at a traditional archive, digitized or not, the viewer can easily flip between two images or open separate browser windows to compare the works. In a virtual exhibit, they can at best walk back and forth between disconnected and distant walls comparing a mental image of the work to the one
before them. It simulates a real world experience with art changing and being lost.

The spatial section of the exhibit uses information derived from Neatline. It asks the viewer to think about location and site specificity. The artist’s choice in location is important when analyzing the image created, the publicity of the artwork, the message it emits, and the way it functions in the urban space. Neatline maps this information in a historically precise way while Unity uses creative freedoms to present the information with the historical data framing the interpretations. The exhibit is introduced with maps from the Neatline archive to contextualize the urban setting and familiarize the viewer with the districts and occupation zones that divided West Berlin. From there, the exhibit presents real life impossibilities by flattening time to focus on space. This affordance of Unity is critical to clearly departing from the realistic reconstruction of the Wall to create a different understanding of the experience. Only in this space is it possible to see Haring, Noir, and English’s artworks side by side or see a vandalized work next to its original. This allows viewers to think about how the space was utilized and what kind of art inhabited that space. For example, some
works in the American district reflect American culture/influence while many are heavily political.

As a whole, this exhibit brings to life significant details that disappear with the art, and in this case, the art’s concrete canvas. The physical artwork is not all that is lost. By creating the three frameworks in the same space, the Unity exhibit momentarily addresses three key aspects of the Berlin Wall artworks: the stories, the space, and the ephemerality. This exhibit cannot recreate the exact experience of the Wall, but it does preserve the ideas or the intangible elements of the ephemera. As ephemeral art is meant to disappear, this is perhaps more important than creating historically accurate replicas.

**Affordances of Unity**

This project highlights a curator’s ability to be creative with the art records. My project specifically emphasizes the ephemerality of the artworks and the wall by animating textures and taking advantage of the plane faces to represent a texture on one side and transparency on the other. The barriers block users from moving backwards, bringing the frustrations of working with ephemeral art to the forefront. These disappearances are part of Unity’s unique
ability to portray artworks in a way that a traditional exhibit could not. The curatorial creativity and freedom offered by Unity is its strongest advantage.

While my project highlights ephemerality well, it does so at the expense of contextualizing the artworks within history of the time period. The Unity exhibit loses the phenomenological aspects and history of the wall that the Checkpoint Charlie museum captures well. This project was looking to highlight the ephemeral aspects first and foremost, which meant losing some of the historical details. This is problematic because it fails to fully portray all aspects of the artwork. This is not to say that it cannot be done within Unity. Historical images, political speeches, and videos from the time could all be used within the exhibit space. This project would benefit from future additions of historical materials that highlighted significant changes in the wall and urban landscape, important events during the Cold War, and more written materials to help guide the viewer through the space.

Using checkpoints, such as the pop-up text, is another affordance that this project takes advantage of to help users navigate the space. These remind visitors that they are not in a historically accurate reconstruction of the space. Rather the exhibit is taking creative liberties and providing users with black and
white images of buildings, watchtowers, and viewing platforms. Doing so is meant to emphasize that the wall was in Berlin, but also remind users that they are in a virtual space. This is important because entering a virtual space requires the user to suspend reality for a moment and directly engage with the immersive environment in order to experience it. The pop-up texts are necessary checkpoints that make the space navigable by orienting the user.

Unity offers a flexible and creative platform that has near endless possibilities for the archivist, curator, or academic. While it does require a certain level of technological skill, and can have a steep learning curve for more advanced coding, the interactive nature of the gaming environment makes Unity the best choice for this virtual exhibit. While other programs — such as Cheetah 3d or 3D Studio Max — could have created equally realistic simulations, the first person navigation through the space was crucial in creating the experience. The exhibit was not simply about presenting the lost art. It reanimates the artworks and creates an experience that alters the way one thinks about the art. The space, the stories, and the changes over time are archived as well, preserving details that are also ephemeral. Unity was able to create a collection of ephemera that
remembers the artworks rather than an exhibition of permanent or static reproductions.

A Summary

Each of these projects contributed something new to archival methods and exhibit practices. The table below summarizes each tool in regards to the four questions asked earlier on (table 1). The information in the database was used in each tool, but mediated differently in each. The choices that I made when mediating the data, for example creating tags or classifications, represents the archival process and its ability to add meaning or significance to data. Rather than creating an exact visual replica of the database, the Neatline and Palladio archive are used to highlight the different ways digital technologies can store and exhibit the data. Unity offers a chance to experience ephemerality in an immersive and interactive way. All had their advantages and the possibility of being strengthened by archiving more records and adding more historical context.
Table 1 A summary of the four tools in relation to the four questions.

<table>
<thead>
<tr>
<th>Digital Tool</th>
<th>What’s New?</th>
<th>Representation of Ephemeralitry</th>
<th>Affordance</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palladio</td>
<td>Node-link diagrams, potential for crowd-sourcing because of digital platform, and utilizes filters/facets</td>
<td>Highlights the lost relationships between works, artists, space, time, and historical and cultural events</td>
<td>Relational data: creates networks and thematic groups</td>
<td>Classification/tags refine data but do not necessarily create unexpected connections</td>
</tr>
<tr>
<td>Neatline</td>
<td>Changes the place and stores information on a map with interactive timeline</td>
<td>Timeline creates a lifespan for the artworks, highlighting change over time</td>
<td>Spatial and temporal information</td>
<td>Representing multiple items in one polygon and Dublin Core standards</td>
</tr>
<tr>
<td>Unity3d</td>
<td>Participatory and engaging, reaches a broad audience, allows for creative re-creations and experiences</td>
<td>Emphasizes relationships, animates textures/images to show change over time, creates urban environment, provides ephemeral elements such as disappearing walls</td>
<td>Relational, spatial, temporal, and experiential</td>
<td>Time commitment and knowledge of C# required</td>
</tr>
</tbody>
</table>
Conclusion

There are many ways to archive and exhibit ephemeral art, some more effective than others. Each has its strengths and weaknesses, but combined create a powerful representation and remembrance of ephemeral art and the Berlin Wall. They capture lost details such as change over time, artistic intention/inspiration, and spatial relationships. While they all brought new methods and stories, one question still needs to be elaborated upon: how can digital technologies change the way we archive, experience, and exhibit ephemeral art? From these case studies, three characteristics stand out most: accessibility, education, and archival process.

The digital archive and virtual exhibit are more accessible than a traditional archive because the archive can be retrieved by anyone. The ability to explore the stored objects is opened up to many rather than to merely a select few who have the means and mobility to travel to the site-bound archive. Its ability to link to external content that has been digitized provides another level of accessibility. Users do not have to travel to another archive or museum. Everything is brought to their computer screen and can be accessed at the same time, bookmarked for later, or revisited multiple times. This ability to reach
many and connect content is important to the way people perceive the content and remember it.

As an educational tool, digital archives and exhibits create opportunities to search and discover information. The Palladio archive highlights this by creating a space where users can interact with the data and manipulate it to create new combinations and comparisons. It serves as a place with educational or research value, but can also be used to satisfy different levels of curiosity. The virtual exhibit minimizes distractions by using pop-up boxes to deliver content. This too allows for visitors of all background levels and interest to choose the amount and type of additional information they receive. The interactive and immersive nature of these digital applications provides visual learners with a different approach to obtaining information as well. Setting up the archive is key to creating this educational experience.

The archival process when working with digital technologies shares similarities with traditional archives, e.g. the spreadsheet, but opens the door to more possibilities, specifically for ephemeral art. The presentation of the data is one difference. Palladio and Neatline contain the same information as the database, but present it to the users as an image heavy gallery that allows for network diagrams or a narrative map that highlights geospatial and temporal
information. A traditional archive would have a difficult time presenting the information in this way. Another procedural difference is the digital technologies ability to animate the records it stores. All three platforms used in this project interact with users and bring the photographs to life. Unity is the best example of this with the changing textures, real world simulations, and first person perspective. It gives the otherwise static images a liveliness or human capability that a traditional archive could not achieve.

Digital technologies are the space where ephemeral art should be stored. They have the capacity to contextualize, simulate, and bring to life an art form that is performative. While these archives worked well for the Berlin Wall, it is important to think about other ephemeral art forms within these archives and exhibits. Street art and graffiti are prime candidates for these kinds of archives. All street art is site specific, ephemeral, and meant to engage with the public (or other graffiti artists), making map based narratives and network diagrams useful visualizations that capture the essence of the work. Even train graffiti could be archived through a map narrative, highlighting the origin of the work and tracking the train as it moved across the country. The virtual exhibit could use a
never-ending loop of train cars on a track to exhibit different tags or bombs\textsuperscript{1}. The constant movement of the train would express the frustrations of watching train graffiti pass as it is often dizzying and a short-lived, with a fleeting glance being all the viewer has to acknowledge or study the work before it continues on across the country. Both would contextualize the art spatially and temporally while also highlighting the vast graffiti networks created by the trains movement, the difference in styles from east to west, the fleeting nature of the artwork, and the sense that it could still be out in the world, but not knowing exactly where.

Street art lends itself to digital technologies over traditional archives because of its liveliness.

Dance, theater, and performance art would require manipulating these case studies. As they rely primarily on video, there is always a reconstruction of the artwork. Video captures the movement, the passing time, and the auditory elements. However, one could look at multiple dance performances and break them down into gestures or movements and upload these classifications to Palladio to see if there is a gesture frequently used to express a certain emotion or experience or if a specific movement was used often in a particular region or

\textsuperscript{1} A throw-up refers to an intricate graffiti tag, which can be embellished with a small pictorial work or small symbols. A bomb refers to a full train car mural.
during a period of time. The map-based narrative could plot where performances originated, were first performed, where the dancers were from, and where they travelled all in regards to time to visualize cultural trends.

Ideally, these archives and exhibits would be used to supplement educational experiences. I have a vivid memory of reading about the Berlin Wall in a world history textbook in the eighth grade just a few weeks before the school year ended. It was no more than six pages long with a handful of pictures and I walked away remembering the East was bad and the West was good, a rather simplified and biased history lesson. While I learned more over the years, it was not until working with these images, thinking about why they were created, and where they were created, that I saw the intricacies of this period in time. I would like to see the projects I created used as a way to share this information with eight graders, or any education level, reading the same oversimplified textbook explanation of the Cold War in Berlin. For museums, I would like to see them on their websites as both an advertisement and supplemental experience. They would be great classroom resources for school groups who will be or have already toured an exhibit. While it does take time to create these digital projects, the benefits of the user engagement through interactive elements, and
contextualization of ephemeral artworks, and accessibility of the projects is worth the effort.
Figures

Figure 1. Christophe Bouchet, *Untitled*. Photographed by Hermann Waldenburg (1985) and Harry Hampel (1989).
Figure 2. Gordon & Rude, Untitled. Photographed by Hermann Waldenburg (1985).
Figure 3. Unknown, *Untitled*. Photographed by Hermann Waldenburg (1987).
Figure 4. Thierry Noir, *Untitled*. Photographed by Hermann Waldenburg (1986).
Figure 5. Screenshot of mauерfotos.de, November 10, 2015.
Figure 6. Screenshot of Palladio data interface, November 10, 2015.
<table>
<thead>
<tr>
<th>Title</th>
<th>Year</th>
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<tbody>
<tr>
<td>God Bless</td>
<td>1984</td>
<td>Abstract figure perched on bottom step of stairs.</td>
</tr>
<tr>
<td>Bow and Arrow</td>
<td>1985</td>
<td>Contour firing an arrow at a breaking heart.</td>
</tr>
<tr>
<td>Humpty Dumpty</td>
<td>1985</td>
<td>Humpty Dumpty falls off of a brick wall covered in graffiti.</td>
</tr>
<tr>
<td>Skeletal love</td>
<td>1986</td>
<td>Two skeletons with their arms around one another lying on a</td>
</tr>
<tr>
<td>Dividing Berlin</td>
<td>1985</td>
<td>An image of Berlin (likely) as two faces being torn apart</td>
</tr>
<tr>
<td>Open Door</td>
<td>1994</td>
<td>An open door labeled exit and letters of the alphabet.</td>
</tr>
<tr>
<td>Tick-Tack</td>
<td>1987</td>
<td>A clock faced figure holding an explosive next to a female</td>
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<tr>
<td>Mirrors</td>
<td>1987</td>
<td>Three mirrors with figures, excluding the center mirror</td>
</tr>
<tr>
<td>Spy and MTV</td>
<td>1993</td>
<td>Face of spy and MTV reference</td>
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<tr>
<td>Fish and Musicians</td>
<td>1997</td>
<td>Heavy painting of a wall depicting a fish with razor teeth</td>
</tr>
<tr>
<td>ETSI</td>
<td>1997</td>
<td>A wall covered in bathroom graffiti</td>
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<tr>
<td>Skull posters</td>
<td>1990</td>
<td>Paper pasted to the wall in sections showing the remains</td>
</tr>
<tr>
<td>Fish</td>
<td>1985</td>
<td>Fish with razor sharp teeth and colorful scales.</td>
</tr>
<tr>
<td>Mirror shards</td>
<td>1989</td>
<td>Shards of mirror fitted together to form a shattered</td>
</tr>
<tr>
<td>Flying woman</td>
<td>1985</td>
<td>Repeated image of a flying woman set in a wave motion</td>
</tr>
<tr>
<td>Faces to the Left</td>
<td>1990</td>
<td>Abstract outlines of faces created by Neer</td>
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Figure 7. Screenshot of Palladio gallery view. Created 31 October 2015.
Figure 8. Screenshot of facets and timeline in gallery view. Created 31 October 2015.
Figure 9. Jordan Noyes Thierry Noir/Identification data visual, 22 October 2015.
Figure 10. Unknown, *Untitled*. Photographed by Hermann Waldenburg (1988).
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<th><strong>Title</strong></th>
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**Collection**
Berlin Wall Spatial Archive

**File Metadata**
- bw46.jpg

**Output Formats**
- atom
- dcmes-xml
- json
- omeka-json
- omeka-xml

**Bibliographic Citation**

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Figure 11. Screenshot of Omeka entry, November 10, 2015.
Figure 12. Screenshot of Neatline interface, November 10, 2015.
Figure 13. Screenshot of Unity interface showing the Berlin Wall exhibit, November 10, 2015.
Figure 14. Jordan Noyes, Narrative exhibit detail showing figures 15 and 16.
Figure 15. Jordan Noyes, Checkpoint Charlie texture (detail).
Figure 16. Jordan Noyes, Noir and Bouchet wall texture.
Figure 17. Jordan Noyes, Narrative exhibit detail showing figures 18, 19, 20, and 21.
Figure 18. Jordan Noyes, Popular culture wall texture.
Figure 19. Jordan Noyes, Art history wall texture.
Figure 20. Jordan Noyes, Artistic motive wall texture (detail).
Figure 21. Jordan Noyes, Artistic style wall texture.
Figure 22. Jordan Noyes, Narrative exhibit detail showing figure 23.
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Figure 24. Jordan Noyes, Narrative exhibit detail showing figures 25 and 26.
Figure 25. Jordan Noyes, White line wall text (white line will be part of video texture).
Figure 26 Jordan Noyes, Messages wall texture.
Figure 27. Screenshot of Unity exhibit highlighting the ephemeral art/walls, November 10, 2015.
Appendix

A.1 Spreadsheet guidelines

Image #: bw with number (e.g. bw1, bw2, etc…), based on order uploaded.

Name: title given to the photograph OR descriptive title given by me if no title exists.

Date: Year photograph was taken. Additional info like month and day should be added to the Notes section.

Artists: artist’s name if known.

District: the district of Berlin in which the photograph is located.

Proximity: relation to other images, use n/s when unknown.

Nearby Landmarks, Roads, or Regions: any other geospatial information that can precisely locate the image on the Wall.

Source: citation for the photograph.

Subject: list of subjects or themes in the artwork. Specifically looking at signs, symbols, archetypes, figures, etc…

Tag: The subject that best represents the artwork as a whole. Column created specifically for Palladio database.

Identification: What the work is expressing, representing, or reacting to.
  • Social commentary: commentary on social happenings
  • Political: direct reference to a form of government, government officials, and/or political happenings
  • Popular Culture: any media related reference (music, television, books, etc…)
  • Personal expression/identity: no clear reference/self-expression or create expression
Language: the language of the text used if any.

Text: What the text says in original language. Translations go in Notes

Graffiti: yes or no answer

Graffiti Notes: Created to highlight the white line specifically as it can be geo-located. Also notes other important texts such as anti-American references.

Type of Street Art: choice of classification
- Pictorial: image based street art
- NYC: graffiti tags or graffiti reflective of movement in New York City in the 80’s
- Bathroom: scrawlings on the Wall that are not particularly aesthetically pleasing

Description: a sentence describing the image.

Dimension: the number of panels the artwork takes up.

Historical/Cultural reference: The historical or cultural reference being made in the artwork if any.

Artistic Influence: If the work is influenced by a style or particular artist.

Media: the presumed medium used to create the artwork.

Purpose of Photograph: why the photograph was taken. Either documentary or artwork.

Notes: any information that did not fit into one of the previous categories.

Palladio: checkmark to note whether or not the artwork would be used in the digital construction.
**Neatline**: checkmark to note whether or not the artwork would be used in the digital construction.

**Unity**: checkmark to note whether or not the artwork would be used in the digital construction.
A.2 Spreadsheet example

**Image #:** bw11

**Name:** Fish

**Date:** 1985

**Artists:** Christophe Bouchet

**District:** Tiergarten

**Proximity:** n/a

**Nearby Landmarks, Roads, or Regions:** Potsdamer Platz

**Source:** Waldenburg, The Berlin Wall, 25

**Subject:** fish, hook, water

**Tag:** animal

**Identification:** Personal Expression/Identity

**Language:** n/a

**Text:** n/a

**Graffiti:** no

**Graffiti Notes:** n/a

**Type of Street Art:** pictorial

**Description:** Fish with razor sharp teeth and colorful scales.

**Dimension:** 5
Historical/Cultural reference: n/a

Artistic Influence: n/a

Media: paint

Purpose of Photograph: documentary

Notes: (none)

Palladio: yes

Neatline: yes

Unity: yes
A.3 Omeka Guidelines

**Identifier:** file name

**Title:** Name

**Date:** Year

**Creator:** Artist(s)

**Source 1:** District

**Source 2:** Nearby Landmarks, Roads, or Regions

**Rights:** Source

**Subject 1:** Identification

**Subject 2:** Subject

**Language:** Language

**Description:** Description

**Format:** Media
Bibliography


“Forget Me Not: An Interview with Geoffrey Batchen.” By Brian Dillon. Cabinet Magazine 14 (Summer 2004).


