

NEH Application Cover Sheet (PW-253795)

Humanities Collections and Reference Resources

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Field of expertise: Arts, General

INSTITUTION

American Folk Art Museum
New York, NY 100236214

APPLICATION INFORMATION

Title: *Planning to digitize and create broad online access to the Henry Darger Papers at the American Folk Art Museum.*

Grant period: From 2017-05-01 to 2018-04-30

Project field(s): Arts, General

Description of project: The American Folk Art Museum is the home to the single largest public repository of works by Henry Darger (1892-1973), one of the most significant self-taught artists of the 20th century. The Darger Papers collection totals 38 cubic feet and includes his epic 15,145-page novel called "The Story of the Vivian Girls, in What is Known as the Realms of the Unreal, of the Glandeco-Angelinian War Storm, Caused by the Child Slave Rebellion", other manuscripts including his autobiography and journals, scrapbooks, and 12 cubic feet of source materials used by the artist to make hundreds of large-scale illustrations for the "Realms." The manuscripts have never been published and are fragile, making access difficult and necessitating minimal handling. The grant will be used to consult with copyright and technical specialists, determine which materials will be digitized, complete a conservation survey, convene a panel of Darger scholars, and consult with digital humanities experts.

BUDGET

Outright Request	50,000.00	Cost Sharing	19,348.00
Matching Request	0.00	Total Budget	69,348.00
Total NEH	50,000.00		

GRANT ADMINISTRATOR

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The American Folk Art Museum seeks a Foundations grant from the National Endowment for the Humanities to prepare for the Henry Darger Papers at the American Folk Art Museum to be digitized and made widely accessible online.

The American Folk Art Museum is the home to the single largest public repository of the papers of Henry Darger (1892-1973), one of the most significant self-taught artists of the 20th century. The collection totals 35 cubic feet of materials, including the epic 15,145-page novel called *The Story of the Vivian Girls, in What is Known as the Realms of the Unreal, of the Glandeco-Angelinian War Storm, Caused by the Child Slave Rebellion*. *The Realms*, as it is known, is a tale of seven little girls—the Vivian Girls—who set out to rescue abducted children who have been enslaved by the adult Glandelinians. The heroes in this tale are children, who occasionally appear unclothed and are of mixed gender. The villains typically are adults. The manuscript is a story of war and peace, of good versus evil, and loosely parallels many of the events of the American Civil War. The Darger Papers also include two other manuscripts, journals, diaries, scrapbooks, planning journals, collages/portraits of characters. Additionally, there are 12 cubic feet of source materials used by the artist to make hundreds of large-scale watercolor illustrations for which the artist is acclaimed; personal papers; religious paraphernalia; and a collection of books.

Henry Darger was born in Chicago in 1892 and was institutionalized in an asylum at a young age for behavioral problems. In 1909, at age 17, he escaped the asylum and returned to Chicago, where he lived for the rest of his life, working more than fifty hours a week as a dishwasher, bandage roller, and janitor for local hospitals. He led a solitary life and attended mass several times each day at a Catholic church near his home. In 1930, he rented a large second-floor room on Chicago's North Side, which he inhabited until his death in 1973, at the age of 81. After his death, his landlords, Nathan and Kiyoko Lerner, discovered hundreds of watercolors, found images, and hand-bound volumes of Darger's literary work among the clutter he had accumulated over the years. Nathan Lerner, an influential photographer and inventor, recognized the merit of the works and shared it among his art peers. Lerner took charge of the estate, ensuring its preservation.

Darger's watercolor paintings are critically acclaimed and in many prestigious collections around the world. The manuscripts and other unique papers in the collection of the American Folk Art Museum have never been published and are in fragile condition making access difficult and necessitating minimal handling. A HCRR Foundations grant from the National Endowment for the Humanities will be used for the formative stages of efforts to preserve and create access to the Darger Papers which will have significant impact on the understanding of a complex and enigmatic artist whose work intersects many humanities themes. Activities include consulting with copyright and technical specialists to determine how to digitize the fragile materials, convening an advisory board with Darger scholars and museum colleagues to strategically determine which materials will be digitized and identify the best Web platform possible to communicate the scope of this oeuvre, completing a conservation survey, and consulting with digital humanities experts. The result of the planning process will be a white paper report that will 1) guide decision making for preserving and creating access to the Darger Papers, 2) describe technical requirements for future digitization, and 3) make recommendations for future conservation.

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Project Narrative

Significance

The American Folk Art Museum is the home to the single largest public repository of artworks and writings by Henry Darger (1892-1973), one of the most significant self-taught or “outsider” artists of the 20th century. The American Folk Art Museum seeks a Foundations grant from the National Endowment for the Humanities to prepare for the Henry Darger Papers at the American Folk Art Museum to be digitized and made widely accessible online.

Henry Darger’s large-scale, double-sided watercolor paintings are critically acclaimed and in many prestigious collections around the world. Lesser known is the artist’s extensive writing activity, highly connected with his visual practice. All of his manuscripts are in the collection of the American Folk Art Museum, including his autobiography and several epic novels, the most famous being *The Story of the Vivian Girls, in What is Known as the Realms of the Unreal, of the Glandeco-Angelinian War Storm, Caused by the Child Slave Rebellion*, which exceeds 15,000 pages. The manuscripts and other papers in the collection have never been published. Their fragile condition makes their access difficult, as it necessitates minimal handling.

A HCRR Foundations grant from the National Endowment for the Humanities will be used for the formative stages of efforts to preserve and create access to the Darger Papers which will have significant impact on the understanding of a complex and enigmatic artist whose writings and art dealt with many humanities themes. Activities include completing a conservation survey, convening an advisory board with Darger scholars and museum colleagues to strategically determine which materials will be digitized and identify the best Web platform possible to communicate the scope of this oeuvre, consulting with copyright and technical specialists to determine how to digitize the fragile materials, and consulting with digital humanities experts. The result of the planning process will be a white paper report that will 1) guide decision making for preserving and creating access to the Darger Papers, 2) describe technical requirements for future digitization, and 3) make recommendations for future conservation.

About the Artist

Henry Darger was born in Chicago in 1892. When he was nearly four, his mother died after she gave birth to a girl who was then given up for adoption. Darger never met his sister; he lived with his father, an impoverished tailor, until 1900, when he was placed in a Catholic institution for young boys, the Mission of Our Lady of Mercy. He attended public school during this period and was apparently a very good student, showing a particular interest in the Civil War. After evincing signs of behavioral problems, and at the recommendation of several medical evaluations, however, he was sent to live in an asylum for “feeble-minded” children in Lincoln, Illinois. The institution housed fifteen hundred unprivileged children, many of whom were severely developmentally disabled. There, Darger received a rudimentary education. After his father died in 1905, Darger made several attempts to escape from the asylum; in 1909, at age 17, he succeeded. He returned to Chicago, where he lived for the rest of his life, working more than fifty hours a week as a dishwasher, bandage roller, and janitor for local hospitals. He led a solitary life and attended mass several times each day at a Catholic church near his home. In 1930, he rented a large second-floor room on Chicago’s North Side, which he inhabited until he died at age of 81 on April 13, 1973.

Shortly after Darger died, his landlords, Nathan and Kiyoko Lerner, discovered hundreds of watercolors—most of them bounded in large scrapbooks—found images, and hand-bound volumes of Darger’s literary work among the clutter he had accumulated over the years. Nathan Lerner, an influential photographer and inventor, recognized the merit of the works and shared it among his art peers. Lerner took charge of the estate, ensuring its preservation. Not long after its discovery, Darger’s work gained a unique stature among the world of “outsider art,” though most scholars have argued that it transcends all categorization. The American Folk Art Museum today owns the largest collection of artworks and writings by Henry Darger, worldwide.

Henry Darger at the American Folk Art Museum

In 2001, through a combination of purchase and donation, the American Folk Art Museum received 38 cubic feet of documents and 22 artworks (15 of which were double sided) by Henry Darger from Kiyoko Lerner. The materials range in date from 1909 to 1971. The bulk of the material in the series are writing/manuscripts, resource, and visual materials. The collection holds the complete known manuscripts of Darger. The manuscripts are both handwritten and typed, some of which are elaborately bound with string and hand-made covers.

Among the most significant items in the Darger collection is the epic 15,145-page novel called *The Story of the Vivian Girls, in What is Known as the Realms of the Unreal, of the Glandeco-Angelinian War Storm, Caused by the Child Slave Rebellion. The Realms*, which displays evident aesthetic connections and narrative content with his well-known large-scale and double-sided watercolors. This multipart manuscript tells the story of seven little girls—the Vivian Girls—who set out to rescue abducted children who have been enslaved by the adult Glandelinians. The heroes in this tale are children, who occasionally appear unclothed and are of mixed gender. The villains typically are adults. The manuscript is a story of war and peace, of good versus evil, and loosely parallels many of the events of the American Civil War.

Other novels in the Darger Papers include *The History of My Life*, a semi-fictionalized autobiography for the first 200 pages, which then becomes a story of a tornado named “Sweetie Pie” that wreaks destruction for the remainder of the five thousand pages; and *Further Adventures in Chicago: Crazy House*, a sequel to *The Realms*. Darger was as passionate journal-writer and obsessed with the weather. He kept a daily weather journal for exactly ten years from 1957 to 1967, and then mysteriously stopped. On each page of the weather journal, he recorded the predicted weather from the newspaper on the left, and the actual weather on the right, pointing out any inconsistencies and including commentaries of his interpretation. In another journal, he kept lists of his favorite poems and songs, copied religious texts, and his own personal daily schedule, listing masses that he attended each day.

Other materials in the Darger Papers include clippings from coloring books, comic books, and newspapers, photographic prints and negatives, Darger’s transfer drawings made from these photographic enlargements, and paper-based collaged imagery and portraiture. Darger’s personal records include a limited amount of personal and business correspondence, including a collection of religious material containing prayer cards, scapulars, clippings and religious imagery, some financial records (pay stubs, bank account books), and assorted ephemera and handwritten notes. The collection also contains Darger’s personal book collection, which includes several books from Frank Baum’s Wizard of Oz series of novels. The collection contains a wide range of children’s

books, including Heidi and Bobbsey Twin novels, illustrated Civil War publications, and a selection of religious books including bibles and assorted catechism, prayer and hymn books.

Darger was a self-taught artist. He found clever ways to create, notably by clipping images from comic books, coloring books, and other printed materials—sometime pulled from the trash—and tracing them onto his canvas. This method allowed him to repeat figures, with slight modifications. He also traced plants, landscapes, and weather features. The panoramic artworks, sometimes 9 feet in length, were illustrations of a sort from *The Realms* in that they do not exactly correspond to a specific passage in the text, but more often condense more complex events that took place in the novel, such as major battles, epic events, and cheerfully stunning landscapes. Representative artworks are included in the Appendix.

Henry Darger's Significance to the Humanities

The artworks have been called “remarkably beautiful and deeply disturbing.” The American Folk Art Museum organized the first comprehensive exhibition of Darger’s work in 1997. There was no doubt as to the sheer power of Darger’s artworks, with its fascinating and complex renderings of the depredations of war and violence against children. The mixed gender of the unclothed children was puzzling and disturbing to others, open to many interpretations since the artist did not explain his choice to depict the children in this fashion. The museum has positioned itself to seek a fully nuanced understanding of Darger’s life achievement in all its contexts through open inquiry and responsible, multidisciplinary research. Darger was not the first nor certainly the only artist to deal with themes of violence, good and evil, the suffering of children, and transgender, but he brought these themes an originality of voice that is staggering for its sheer inventiveness.

The humanities themes present in Darger’s work have been explored in several exhibitions and publications that have been informed by research and study of the Darger Papers. Early on, the American Folk Art Museum became a leader in that regard, producing critically acclaimed exhibitions, along with important essays, catalogues, and panel discussions. At the American Folk Art Museum, the exhibition “Henry Darger: The Certainties of War” (2010) explored the seemingly endless need for humans to continue the perpetual destruction of each other with one conflict after another during the artist’s lifetime. While *The Realms* may have loosely been influenced by the Civil War, Darger was just as aware of the brutality of modern warfare, images of which found themselves in his epic artworks. The exhibition “The Private Collection of Henry Darger,” (2010) illuminated a previously unexplored aspect of Darger’s creative world: it explored his personal holdings, accumulated and displayed it in his one-room apartment in Chicago. In the exhibition “Up Close: Henry Darger and the Coloring Book,” (2009) the curator Brooke Anderson used the Darger Papers to identify source materials for his artwork, many of which were from popular coloring books of the time. This exhibition dispels the myth that the artist was cut off from popular imagery of the time. Indeed, American popular media is evident everywhere: The once mysterious “Blengins” of Darger’s invention (winged creatures), for instance, are sourced from an ice-cream ad showing a winged troll stirring a vat of cream and a winged creature from the comic *Mandrake the Magician*.

Outside of the museum: The 2014 book *Henry Darger, Throwaway Boy: The Tragic Life of an Outsider Artist* by Jim Elledge views Darger through the lens of queer history, suggesting that Darger was a closeted gay man, raised in a world where he could not overcome a childhood trauma

of sexual abuse. While there is little evidence to prove or disprove his theory, it is another way to understand the artist's reclusive nature and mixed gender of the children. The 2005 film "In the Realms of the Unreal" by Jessica Yu posits a simpler theory—Darger portrayed the children nude because they were innocent and good, like Adam and Eve in the Garden of Eden, and perhaps he didn't know that girls had different genitals than boys.

The Darger Papers reveal how this self-taught artist was rooted in the twentieth-century American experience, from his creative process to his deliberate aesthetic decisions. While Darger worked in isolation and kept his project private, he was in no way cut off from the communal experience, whether that experience was religious, occupational, emotional, political, or some combination of these. The contents of the archive prove that he was engaged in the life of his church and place of employment, that he had personal relationships (albeit few), and that he was aware of and interested in current events such as the world wars and in historical moments such as the Civil War. The sheer size of the Darger Papers means there is much more to be discovered and threads to be followed. By digitizing it and placing it online, the American Folk Art Museum can make a significant contribution to the understanding of this complex and enigmatic master.

A select exhibition history on the artist Henry Darger is attached in the Appendix.

History, scope, and duration

Excerpts from Darger's writings were published in 2001 "Henry Darger: Disasters of War" edited by MoMA-PS1 director Klaus Biesenbach including a conversation with former landlord Kiyoko Lerner, and more recently in *Artist Novels* (introduction to "The Realms of the Unreal" by the American Folk Art Museum curator Valérie Rousseau, published by the Book Lovers, 2014). In 2001, Brooke Davis Anderson, former curator at the American Folk Art Museum, established the Darger Study Center to promote and support research on the materials. The Center accepted a Darger Fellow each year for study of materials. There was no archivist on staff at the time and the Registrar oversaw the access to the materials. In 2008, the Getty Foundation awarded the American Folk Art Museum a grant to perform a collection-level survey of the materials and to rehouse the papers, which was completed in 2009.

In 2012, the museum hired Dr. Anne-Imelda Radice, former head of the IMLS, as the new Director. Dr. Radice has a proven track record in advancing museum scholarship, especially through its archival materials and library. She made it a priority to make the library and archives of the American Folk Art Museum accessible as part of her new strategic plan for the museum. In 2014 the museum hired its first-ever archivist who has led efforts to gain intellectual control over all the materials in the archives (over 800 square feet of materials in total.) She has completed a finding aid on the Darger Papers, the table of contents of which is attached as in the Appendix and the full document is available online <http://folkartmuseum.libraryhost.com/> via ArchivesSpace.

In 2015 the museum opened the Collections and Education Center, a new facility that holds the museum's permanent collection, the library and archives study center, an 1,800 square foot gallery space for exhibitions and public programs, and the museum's administrative office. The library and archives study center is open to researchers by appointment.

The American Folk Art Museum is well poised to activate the Darger Papers and make them accessible to the public to encourage research and scholarship. It receives an average of 10 unsolicited requests for access to the Darger Papers per month, many of which cannot be accommodated as much of the materials can no longer safely be handled. Digitization is therefore a high priority for access and preservation. The proposed planning process will allow AFAM to bring national and international Darger stakeholders—researchers, artists, authors, dealers, museum colleagues, and the enthusiasts—together to seek a digitization solution that will best serve all constituents in a way that is sustainable for our small-to-mid-sized institution and provides the broadest access. The year-long planning process will begin in May 2017.

Methodology and standards

The collection was processed in 2008 with support from the Getty Foundation, and at that time it was rehoused in archival containers, including custom boxes for the bound manuscripts, mylar encapsulation for all fragile material, and acid-free files and boxes for the whole collection. The collection was also inventoried to the file level, with some series processed to the item level. At that time, select material from the collection was exhibited, and de-acidified by a professional conservator. The collection is currently stored in a temperature and humidity controlled facility with state of the art security that also stores the AFAM object collection, museum archives and special collections.

A microfilm copy of parts of *The Realms* was created in the 1980's, long before coming into the collection of the American Folk Art Museum. The microfilm copy is extremely poor quality and barely readable. The review panel and technical specialists will make a determination as to whether the microfilm can be digitized and made legible, or if new scans will be necessary. None of the other manuscripts were microfilmed.

Initial research has yielded a large number of stand-alone websites dedicated to being a clearinghouse for research on a particular artist or genre, many of which have received recent support from the National Endowment for the Humanities. The Philadelphia Museum of Art's Duchamp Research Portal was seen as a model project and the white paper on the NEH website has served as the inspiration and guidance for this project.

In 2014 the museum undertook a major website overhaul, and is currently undertaking a digitization effort to make its collection 100% available online, with support from the Leir Charitable Foundation. While designing the new website, special consideration was given to digital assets and how they would be managed and integrated into the site. The collections page pulls directly from the TMS (The Museum System, also called eMuseum), the museum's collections database, <http://collection.folkartmuseum.org/>

The Project Director will be AFAM's Dr. Valérie Rousseau, Curator, Self-Taught Art and Art Brut, with support from Mimi Lester, *Rapport Archivist*. Additional museum staff will be involved including the Chief Registrar Ann-Marie Reilly, and the soon-to-be-hired Digital Asset Manager (a new full-time position which is currently being advertised and expected to be filled by August 2016), the Chief Curator Stacy C. Hollander, and Dr. Anne-Imelda Radice, Executive Director. The Project Director and museum staff will organize panel meetings to discuss which materials to digitize and place online, research and make recommendations about hardware and software,

research and make recommendations about web platforms that will best serve to communicate the scope of the artist's oeuvre, review which materials can still safely be handled, write all reports and notes from the meeting, and prepare the white paper report at the end of the grant process.

Initial outreach for the Darger Research Panel has yielded an enthusiastic response from all involved, letters of commitment and resumes of the panelists are included in the Appendix.

Outside scholars will be brought in to review the project for a one-day meeting, including Darger scholar Michael Bonesteel, author of *Henry Darger: Art and Selected Writings*; and Leisa Rundquist, PhD, Associate Professor of Art History and Department Chair, University of North Carolina, Asheville, NC. Outside scholars will advise on the long-term goals of the project and potential humanities projects that will be possible once the materials are digitized, such as transcription projects, which may be crowdsourced, similar to the efforts of the National Archives. As the texts come online and more people are able to read them, the website can be a place for future publications and dialog. Once we establish what is possible, we can adjust our technical assessment in the development phase.

Museum professionals with significant works by Darger in their collections will be consulted, as they may be able to make additional contributions to the website offerings from their own collections or have additional input and feedback from an international perspective. The two most important have been solicited: Sarah Lombardi, Director, Collection de l'Art Brut, Lausanne, Switzerland, and Choghakate Kazarian, Modern Art Curator, Musée d'Art Moderne de la Ville de Paris.

Technical and copyright assistance will be key to the planning process. Deborah Wythe, Head of Digital Collections and Services at the Brooklyn Museum of Art will be asked to serve as the digital collections and copyright specialist. She will work with our Digital Asset Manager (to be hired August 2016) to address the intellectual property and copyright issues, as well as scanning guidelines, workflow, and metadata standards and creation. Deborah Wythe was a technical consultant for the Philadelphia Museum of Art for their Duchamp Portal. Additionally, we have invited Tara A. Hart, Archives Manager from the Whitney Museum of Art, for technical assistance in assembling the digital files in a way that will be assessable and scalable online. Ms. Hart recently completed a similar project at the Solomon R. Guggenheim Museum and also managed the New Museum's digital archive, establishing and implementing tools, specifications, systems and workflows to manage born-digital archival material for documenting Museum exhibitions and activity. This group will help us determine:

- Hardware and software to be used or refined
- Preparations for and implementation of data processing (for example, digital capture, data entry, optical character recognition, or conversion from another electronic format)
- Production, preservation, and distribution formats (for example, TIFF, JPEG, PDF/A, WAV), levels of resolution, compression, image enhancement, and the accuracy of textual conversion or transcription
- Provisions for ensuring quality control
- Schema for descriptive, administrative, and preservation metadata and controlled vocabularies

- System(s) used to manage and present digital content, including pertinent features for facilitating end use
- Methods for enhancing discoverability, via search engine optimization and open data harvesting and/or inclusion in an aggregated resource such as a digital library, cooperative portal, or clearinghouse.

A conservation survey will be undertaken by Lisa Conte, an independent conservator currently working at the Metropolitan Museum of Art. The conservation survey will make recommendations for future conservation efforts for the Darger Papers. She will also make recommendations about how to best digitize the fragile books, many of which cannot be laid flat and have very fragile spines.

The artist typed the manuscripts on very thin onion skin paper on both sides, making a traditional scan difficult to read with “ghost” images from the verso. OCR (Optical Character Recognition) may not be possible for the typed manuscripts and not at all for the handwritten ones. Our technical advisors and conservator will develop scanning protocols with this in mind.

The result of the planning process will be a white paper report that will 1) guide decision making for preserving and creating access to the Darger Papers, 2) describe technical requirements for future digitization and online access, and 3) make recommendations for future conservation.

Sustainability of project outcomes and digital content

The American Folk Art Museum is committed to being an incubator for scholarship and a leader in the specialized field of folk art and self-taught art by making its collections and archives broadly accessible and usable for the scholar and the casual enthusiast alike. Therefore, we are committed to making the Darger Papers accessible by digitizing them and making them available for use, guided by the careful and thoughtful outcomes from the planning process activities described in this grant. Without careful planning, a large digitization project such as this can quickly become unwieldy and unsustainable, vulnerable to shifting technologies.

The American Folk Art Museum will use The Museum System (TMS) Digital Asset Management System to manage its digital assets as they come online. This is a cloud-based technology, with a redundant backup to ensure safe data storage. The TMS system will directly distribute content online, integrated directly into the museum’s website www.folkartmuseum.org.

Support for the steps after the planning process will be cultivated throughout the year of planning and the NEH Foundations grant, if awarded, will help us leverage additional funding through the stamp of excellence that comes with NEH funding. Many foundations are giving grants to help institutions open a window onto their collection through digitization including the Andrew W. Mellon Foundation, the Leir Charitable Foundations, the Ford Foundation, the Institute of Museum and Library Services, and others. Additionally, we will seek an implementation grant from the NEH to continue to build on the work that the planning grant outlined. Finally, the American Folk Art Museum has made an institutional commitment to assign significant staff time and resources to this project, detailed in the project budget, as a further demonstration of the institutional commitment.

Dissemination

Should the American Folk Art Museum be the recipient of a Foundations grant from the NEH, the white paper report that will result from the planning process will be made accessible on the museum's website and also shared with the NEH as part of the reporting process. The museum will announce the Foundations grant and the project to our members (2,500), monthly eNewsletter subscribers (18,000 subscribers), in our monthly Director's Letter (18,000 subscribers). A press release will be sent to all print and online media outlets by Kate Merlino, Director of Marketing and Communications.

The planning process is an opportunity for the museum to find the best way possible to provide free online access to the digital materials that will ultimately be produced.

Work plan

May-June 2017: Project Director and Curator Dr. Valérie Rousseau, AFAM's *Rapaport Archivist* Mimi Lester, and the Digital Asset Manager (to be hired August 2016) will consult with digital collections and copyright, scanning, and workflow specialists Deborah Wythe and the Digital Archivist Tara Hart. Establish technical requirements for digitization. Review copyright with lawyer. Hire Assistant Project Director who will research other web platforms that are similar in scope and scale. Wythe and Hart will be consulted throughout the planning process.

July-August: Complete conservation survey, including recommendations for digitization. Get quotes and recommendations for digitization—review merits of in house vs. off-site digitization. Prepare report on the technical requirements and protocols necessary for future digitization.

Sept-October: Establish date and agenda for meeting of the Darger Research Panel, research web platforms for digitization, meet with web designers for feedback.

Nov: Host Darger Research Panel at the Collections and Education Center. Full day meeting, view all Darger materials, findings to date. Review conservation survey. Review all technical requirements established to date. Review all materials and make determination of which materials will be placed online.

Dec: Project Director finalize research, make presentations of findings.

Jan-Feb: Draft comprehensive white paper report

March-April: Share white paper with panelists, and additional stakeholders, get feedback and incorporate into report. Disseminate report, write new grant requests for implementation of project.

Project Staff

AFAM Staff

Dr. Valérie Rousseau, Curator, Self-Taught Art and Art Brut

Dr. Rousseau will serve as Project Director and will oversee all aspects of the planning process including organizing the panel meetings, creating agendas, and reviewing all notes and reports that

are generated with grant funds. She will lead the meeting of the Darger Research Advisory Panel to determine which materials will be digitized, set long-term goals for digitization, and establish potential future projects that can be undertaken as a result of the digitization. (10% of time towards the project.)

Mimi Lester, *Rapaport Archivist*

Ms. Lester will serve as the Project Archivist. She will work with outside consultants for the project, work with Dr. Rousseau to develop the agenda for the Darger Research Advisory Panel, make the Darger materials available for the Panel meeting, work closely with the Digital Asset Manager, the copyright specialist, and the consulting digital archivists to establish technical specifications and workflow protocols. She will also work with the conservator to prepare a conservation survey of the Darger Papers. (10% of time towards the project.)

Digital Asset Manager (to be hired August 2016)

A new, full time staff position to manage our digital assets and bring 100% of the collection online. This person is expected to join the staff in August 2016 and will oversee the configuration and testing of the new digital asset management system developed by eMuseum, AFAM's collections database. This person will be an important part of the team to plan for the nuts and bolts of the digitization of the Darger Papers. (10% time towards the project.)

Assistant Project Director (to be hired in May 2017 if grant is successful)

So as to not overburden the current AFAM staff, an Assistant Project Director will be hired to work part time during the grant process. This person will be responsible for administration-level communication with the Darger Research Advisory Panel, arranging dates for meeting, arranging for travel and accommodations for panelists, taking notes during the meetings and other administrative tasks to assist the Project Director or any other staff member working on the planning activities. (100% time towards the project.)

Additional AFAM staff on working group will include **Ann-Marie Reilly**, Chief Registrar, who oversees all activities related to the collection facility; **Stacy C. Hollander**, Deputy Director for Curatorial Affairs and Chief Curator who oversees all curatorial affairs; and **Dr. Anne-Imelda Radice**, Executive Director, who oversees all activities at the museum and reports to the Trustees of the board. All three will participate in the Darger Research Advisory Panel. (equivalent to 5 days each)

Darger Research Advisory Panel and Technical Advisors

Deborah Wythe, PhD, Head of Digital Collections & Services, Brooklyn Museum of Art. Dr. Wythe will advise on the intellectual property and copyright issues of the Darger Papers. She will also advise on scanning guidelines, workflow and metadata standards and creations. Dr. Wythe has more than 35 years of experience as an archivist and has led the field in creating digital collections at the Brooklyn Art Museum since 2005.

Tara A. Hart will serve as the digital initiatives and DAMS specialist, offering expertise on creating scanning guidelines, workflow, and metadata standards and creation, as well as making digital assets available to the public via the web. Ms. Hart has extensive digital archives experience

at museum including the Whitney Museum of American Art, the Solomon R. Guggenheim Museum, and the New Museum.

Michael Bonesteel is a Darger scholar and author of *Henry Darger: Art and Selected Writings* published in 2001 and has contributed essays on Darger to numerous publications and websites, including the book-length catalog for the 2015 exhibition at the Musée d'Art moderne de la Ville de Paris. He is an adjunct assistant professor at the School of the Art Institute of Chicago where he teaches courses on outsider art and the Associate Editor of *The Outsider*, the publication for Intuit: the Center for Intuitive and Outsider Art, Chicago, Illinois.

Sarah Lombardi is the Director of the Collection de l'Art Brut, in Lausanne, Switzerland. This institution, originally created by French artist Jean Dubuffet, is dedicated to *art brut* (loosely translated as “raw art” or more commonly known as “outsider art”) It has the largest collection of Henry Darger artworks outside the United States. Ms. Lombardi will offer an international perspective on the digitization of the manuscripts and the development of partnerships and collaborations between our institutions.

Choghakate Kazarian is a curator at the Musée d'Art Moderne de la Ville de Paris (Museum of Modern Art, Paris, France). She recently curated the exhibition “Henry Darger 1892-1973” at the museum from May 29-October 11, 2015, to critical acclaim. Ms. Kazarian will also offer an international perspective on the digitization of the manuscripts and the development of partnerships and collaborations between our institutions.

Leisa Rundquist, PhD is the Associate Professor of Art History and Department Chair at the University of North Carolina, Asheville. Dr. Rundquist's research is primarily concerned with the intersections of childhood, religious piety, gender, and race in the art of Henry Darger. Dr. Rundquist has presented papers on Darger's work at the College Art Association Conference (2011), Intuit: The Society of Intuitive and Outsider Art, Chicago (2010), Coastal Carolina University (2009), the Southeastern College Art Conference (2015, 2012, 2007) and UNC Asheville Queer Studies Conference (2013). She has published numerous articles on Darger, including one titled “Vivam! The Divine Intersexuality of Henry Darger's Vivian Girls.”

Lisa Conte is the Assistant Paper Conservator and Fellow at The Metropolitan Museum of Art. Prior to her work at the MET, she was a project conservator at the Whitney Museum of American Art, contributing to a comprehensive survey of the prints and drawings collection. She has extensive experience with The Museum System database that the museum will use to host the digital images. In 2009 she was a consultant with TMS and collaborated on the early development of the conservation module portion of the software.

History of Grants

In 2008 the American Folk Art Museum received a grant from the Getty Foundation to do a collection survey of the Darger Papers and rehouse the collection in the amount of \$80,000. That project was carried out by The Winthrop Group.

No further grants have been received for the Darger Papers.



NATIONAL ENDOWMENT FOR THE

Humanities

Budget Form

OMB No 3136-0134

Expires 6/30/2018

Applicant Institution: *American Folk Art Museum*Project Director: *Valerie Rousseau*Project Grant Period: *05/01/2017 through 04/30/2018*[click for Budget Instructions](#)

	Computational Details/Notes	(notes)	Year 1	(notes)	Year 2	(notes)	Year 3	Project Total
			05/01/2017- 04/30/2018		01/01/20__- 12/31/20__		01/01/20__- 12/31/20__	
1. Salaries & Wages								
Valerie Rousseau, Curator	Base salary \$ [REDACTED]	10%	\$ [REDACTED]	%		%		\$ [REDACTED]
Mimi Lester, Archivist	Base salary \$ [REDACTED]	10%	\$ [REDACTED]	%		%		\$ [REDACTED]
Digital Asset Manager	Base salary \$ [REDACTED]	10%	\$ [REDACTED]	%		%		\$ [REDACTED]
Project Assistant	25hrs/week @\$ [REDACTED]/hour for 48 weeks	100%	\$ [REDACTED]	%		%		\$ [REDACTED]
Stacy Hoillander, Chief Curator	Base salary \$ [REDACTED]	5 days	\$ [REDACTED]	%		%		\$ [REDACTED]
Ann-Marie Reilly, Registrar	Base salary \$ [REDACTED]	5 days	\$ [REDACTED]	%		%		\$ [REDACTED]
Anne-Imelda Radice, Executive Director	Base salary \$ [REDACTED]	5 days	\$ [REDACTED]					\$ [REDACTED]
2. Fringe Benefits								
Fringe Benefits	30% of salaried employees		\$ [REDACTED]					\$ [REDACTED]
3. Consultant Fees								
Stipends for Darger Panelists	6 panelists x \$500		\$3,000					\$3,000
Conservation Survey	2 days on site and 3 days writing		\$6,000					\$6,000
4. Travel								
Domestic travel	Bonesteel & Rundquist @1,200 ea	See Budget Narrative	\$2,400					\$2,400

International travel	Kazarian & Lombardi @\$1,800 ea	See Budget Narrative	\$3,600					\$3,600
5. Supplies & Materials								
6. Services								
7. Other Costs								
8. Total Direct Costs	Per Year		\$69,348		\$0		\$0	\$69,348
9. Total Indirect Costs								
	Per Year		\$0		\$0		\$0	\$0
10. Total Project Costs	(Direct and Indirect costs for entire project)							\$69,348
11. Project Funding	a. Requested from NEH <div> Outright: \$50,000 Federal Matching Funds: \$0 TOTAL REQUESTED FROM NEH: \$50,000 </div> b. Cost Sharing <div> Applicant's Contributions: \$19,348 Third-Party Contributions: \$0 Project Income: \$0 Other Federal Agencies: \$0 TOTAL COST SHARING: \$19,348 </div>							
12. Total Project Funding								\$69,348

Total Project Costs must be equal to Total Project Funding ----> (\$69,348 = \$69,348 ?)
Third-Party Contributions must be
greater than or equal to Requested Federal Matching Funds ----> (\$0 ≥ \$0 ?)

List of Participants

Bonesteel, Michael. Art Institute of Chicago

Conte, Lisa. Metropolitan Museum of Art

Hart, Tara A. Whitney Museum of American Art

Kazarian, Choghakate. Musée d'Art Moderne de la Ville de Paris

Lester, Mimi. American Folk Art Museum

Lombardi, Sarah. Collection de l'Art Brut

Rousseau, Valerie. American Folk Art Museum

Rundquist, Leisa. University of North Carolina

Wythe, Deborah. Brooklyn Museum of Art

July 14, 2016

National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

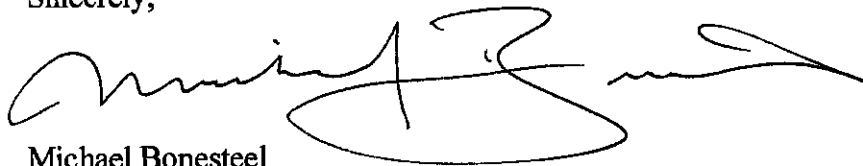
To the Review Panel of the HCRR Foundations grant,

I'm writing in support of the American Folk Art Museum's efforts to embark on a yearlong planning process to develop a plan to digitize and make accessible the papers of one the greatest self-taught artists in the 20th century: Henry Darger. The unique materials in the collection of the American Folk Art Museum are unparalleled anywhere else in the world.

As a Darger scholar and the author of *Henry Darger: Art and Selected Writings*, I have used the Darger Papers at the American Folk Art Museum as primary source materials on a number of occasions. Other than personally visiting the Folk Art Museum archives, my only other recourse in the past has been to consult reproductions derived from old microfilm copies with such poor resolution that they are often indecipherable and nearly unreadable. The significance and meaning of Darger's visual art is critically dependant upon an understanding of his written work. Therefore, digitizing these documents and making them available online will not only preserve them for generations, it will make a crucial impact on the research and scholarship of this important artist.

I have agreed to serve on the Darger Research Advisory Board and lend my expertise to the planning efforts to digitize this important collection. I enthusiastically support this worthwhile endeavor and applaud the American Folk Art Museum for this important initiative. I fully recommend their application to the Humanities Collection Reference Resources program for a Foundations planning grant.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Bonesteel', with a large, stylized loop at the end.

Michael Bonesteel

Lisa Conte

(b) (6)



July 15, 2016

National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

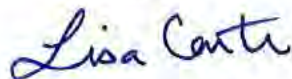
To the Review Panel of the HCRR Foundations grant:

I'm writing in support of the American Folk Art Museum's efforts to embark on a yearlong planning process to develop a plan to digitize and make accessible the papers of one the greatest self-taught artists in the 20th century: Henry Darger. The unique materials in the collection of the American Folk Art Museum are unparalleled anywhere else in the world. Digitizing them and making it available online will not only preserve the documents for generations, it will make a significant impact on research and scholarship on this important artist.

I have agreed to perform a collection survey of the Darger Papers and make recommendations for future conservation efforts.

I enthusiastically support this worthwhile endeavor and applaud the American Folk Art Museum for this important initiative. I fully recommend their application to the Humanities Collection Reference Resources program for a Foundations planning grant.

Sincerely,



Lisa Conte

WHITNEY

Whitney Museum
of American Art

99 Gansevoort Street
New York, NY 10014

whitney.org
info@whitney.org

(212) 570-3600

July 7, 2016

National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

To the Review Panel of the HCRR Foundations grant,

I'm writing in support of the American Folk Art Museum's efforts to embark on a yearlong planning process to develop a plan to digitize and make accessible the papers of one the greatest self-taught artists in the 20th century: Henry Darger. The unique materials related to this singular artist are unparalleled anywhere else in the world. Digitizing them and creating an online access portal will not only preserve the documents for future generations, it will make a significant impact on current research and scholarship related to this important artist.

I have agreed to serve on the Darger Research Advisory Board as the digital initiatives and DAMS specialist. I will offer expertise and advice on creating digitization guidelines, workflow, and metadata standards, as well as making digital assets available to the public via the web.

I enthusiastically support this worthwhile endeavor and applaud the American Folk Art Museum and their capable staff for embarking on this important initiative. I fully recommend their application to the Humanities Collection Reference Resources program for a Foundations planning grant.

Sincerely,



Tara Hart
Archives Manager
(212) 671-5335
tara_hart@whitney.org

Whitney Museum of American Art
99 Gansevoort Street
New York, NY 10014

MUSÉE
D'ART
MODERNE
DE LA VILLE DE PARIS

11 AVENUE DU PRÉSIDENT WILSON - 75116 PARIS
ADRESSE POSTALE 9 RUE GASTON DE SAINT-PAUL - 75116 PARIS
TÉL / +33 (0)1 53 67 40 00
WWW.MAM.PARIS.FR

National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

Paris, July 13th

To the Review Panel of the HCRR Foundations grant,

I'm writing in support of the American Folk Art Museum's efforts to embark on a yearlong planning process to develop a plan to digitize and make accessible the papers of one the greatest self-taught artists in the 20th century: Henry Darger. The unique materials in the collection of the American Folk Art Museum are unparalleled anywhere else in the world. Digitizing them and making it available online will not only preserve the documents for generations, it will make a significant impact on research and scholarship on this important artist. I am even more sensitive to this project as it will enable to expand Darger studies to a non-American audience. Recent publications and exhibitions worldwide have proven the growing importance of Henry Darger as one of the key figures of not only outsider art but also in art history in general. These events have also demonstrated how little we know about this wide oeuvre and how much the archives are the key to access this large body of visual and literary work.

I have agreed to serve on the Darger Research Advisory Board and lend my expertise to the planning efforts to digitize this important collection.

I enthusiastically support this worthwhile endeavor and applaud the American Folk Art Museum for this important initiative. I fully recommend their application to the Humanities Collection Reference Resources program for a Foundation planning grant.

Sincerely,



Choghakate Kazarian
Curator, modern art
Musée d'Art moderne de la Ville de Paris

COLLECTION DE L'ART BRUT LAUSANNE

Avenue des Bergières 11
CH – 1004 Lausanne

Tél. +41 21 315 25 70
Fax +41 21 315 25 71

art.brut@lausanne.ch
www.artbrut.ch

National Endowment for the
Humanities
Division of Preservation and
Access
400 7th Street SW
Washington, DC 20506
USA

Lausanne, July 14, 2016

To the Review Panel of the HCRR Foundations grant,

I'm writing in support of the American Folk Art Museum's efforts to embark on a yearlong planning process to develop a plan to digitize and make accessible the papers of one the greatest self-taught artists in the 20th century: Henry Darger. The unique materials in the collection of the American Folk Art Museum are unparalleled anywhere else in the world. Digitizing them and making it available online will not only preserve the documents for generations, it will make a significant impact on research and scholarship on this important artist.

I have agreed to serve on the Darger Research Advisory Board and lend my expertise to the planning efforts to digitize this important collection.

I enthusiastically support this worthwhile endeavor and applaud the American Folk Art Museum for this important initiative. I fully recommend their application to the Humanities Collection Reference Resources program for a Foundations planning grant.

Sincerely,



Sarah Lombardi
Director of the Collection
de l'Art Brut

July 18, 2016

National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

Department of Art and Art History
215 Owen Hall, CPO #1840
UNC Asheville, One University Heights
Asheville, North Carolina 28804-8511

T 828-251-6559
DeptofArt@unca.edu
<http://art.unca.edu/>

To the Review Panel of the HCRR Foundations grant,

I'm writing in support of the American Folk Art Museum's efforts to embark on a yearlong planning process to develop a plan to digitize and make accessible the papers of one the greatest self-taught artists in the 20th century: Henry Darger. The unique materials in the collection of the American Folk Art Museum are unparalleled anywhere else in the world. Digitizing them and making it available online will not only preserve the documents for generations, it will make a significant impact on research and scholarship on this important artist.

My research and interests in the art and writings of Henry Darger are extensive. They include a dissertation, "Pyre: A Poetics of Fire and Childhood in the Art of Henry Darger" (UNC Chapel Hill 2007), three published articles about his work pertaining to the intersections of gender, race, and religious piety, and two curated exhibitions featuring the work of Darger with a third forthcoming (*Betwixt and Between: Henry Darger's Vivian Girls*, Intuit: The Center for Intuitive and Outsider Art, Chicago, April 14–September 4, 2017). Furthermore, I am in the process of developing a book proposal on Darger's Vivian girls for an academic publisher.

I have agreed to serve on the Darger Research Advisory Board and lend my expertise to the planning efforts to digitize this important collection. I enthusiastically support this worthwhile endeavor and applaud the American Folk Art Museum for this important initiative. I fully recommend their application to the Humanities Collection Reference Resources program for a Foundations planning grant.

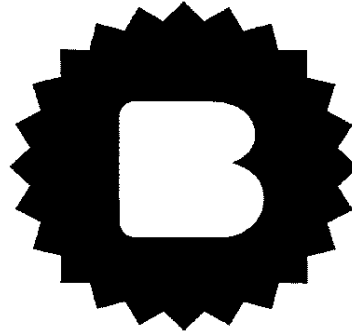
Sincerely,



Leisa Rundquist, PhD
Associate Professor of Art History
Chair, Department of Art and Art History
lrundqui@unca.edu

Deborah Wythe

Head, Digital Collections and Services



July 7, 2016

National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

To the Review Panel of the HCRR Foundations grant,

I'm writing in support of the American Folk Art Museum's efforts to embark on a yearlong planning process which to develop a plan to digitize and make accessible the papers of one the greatest self-taught artists in the 20th century: Henry Darger. The unique materials are unparalleled anywhere else in the world. Digitizing them and making it available online will not only preserve the documents for generations, it will make a significant impact on research and scholarship on this important artist.

I have agreed to serve on the Darger Research Advisory Board and to offer advice on the intellectual property and copyright issues, as well as scanning guidelines, workflow, and metadata standards and creation for this project.

I enthusiastically support this worthwhile endeavor and applaud the American Folk Art Museum for this important initiative. I fully recommend their application to the Humanities Collection Reference Resources program for a Foundations planning grant.

Sincerely,

A handwritten signature in black ink, which appears to read 'Deborah Wythe' in a cursive script.

Brooklyn Museum

200 Eastern Parkway, Brooklyn, NY 11238-6052
T 718-501-6311 F 718-501-6145
Deborah.Wythe@brooklynmuseum.org

MICHAEL BONESTEEL

(b) (6)

Web site: <http://www.michaelbonesteel.com>

email: (b) (6)

mbones@saic.edu

PROFILE

Educator, lecturer, author, art historian, critic, curator and editor with more than 40 years of experience. Engaging, effective adjunct assistant professor whose personally designed, innovative art history classes in the emerging fields of self-taught/intuitive art and the graphic novel/sequential art at the School of the Art Institute of Chicago consistently fill to overflowing each semester. Adept at presenting lively, humorous and enthralling guest lectures on the above subjects geared toward college or high school level students. Well regarded internationally as an authority and theoretician in the field of self-taught/intuitive art, with special expertise in the art and writings of Henry Darger.

FULL-TIME, PART-TIME & FREELANCE EMPLOYMENT

2003-2016: **School of the Art Institute of Chicago.** Adjunct assistant professor: "Introduction to Outsider Art"; "The Present & Future of Outsider Art"; "Chicago's Visionary Seven"; "Comic Book: Golden Age to Comics Code"; "Comic Book: Silver Age to Graphic Novel"; "Masters of Sequential Art"; "International Comics," 112 S. Michigan Ave., Chicago, Ill.

1975-2016: **Freelance writer.** Feature articles, art and literary criticism for *Artforum* (New York), *Art in America* (New York), *Raw Vision* (Watford, UK/New York, USA), *Chicago Tribune*, *Sun-Times* (Chicago), *Chicago* magazine, *Reader* (Chicago), *New Art Examiner* (Chicago/Washington, D.C., Cornwall, UK) and numerous other publications.

1996-2016: ***The Outsider*.** Positions held: Associate Editor, book review columnist and feature writer. Publication of Intuit: The Center for Intuitive and Outsider Art, 756 N. Milwaukee Ave., Chicago, Ill.

1982-2009: ***Pioneer Press Newspapers*** (a former subsidiary of the *Chicago Sun-Times*). Managing Editor, arts & entertainment, Chicago, Oak Park, Evanston and Skokie. Additional positions held at various times during this period: Managing Editor, news; Food Editor; Home & Design editor; Art Critic; Theater Critic; Film Critic; Video Critic, 3701 W. Lake Ave., Glenview, Ill.

1981-1988: ***Art in America*.** Chicago Correspondent, art criticism and features. 980 Madison St., New York.

EDUCATION

University of Wisconsin - Madison: 16 Graduate credits in English completed (no degree).

University of Wisconsin - Eau Claire: BA, English and Psychology; Honor's Program in Creative Writing.

BOOKS

Author:

Henry Darger: Art and Selected Writings, Rizzoli International Publications, New York, 2000.

Beyond Mars, Quest Publishing, Madison, Wis., chapbook of poetry previously published in "little magazines," 1976.

8 Poems, Morgan Press, Milwaukee, Wis., chapbook of poetry previously published in "little magazines," 1975.

Co-author:

The Prints of John Himmelfarb: A Catalogue Raisonne 1967-2004, Hudson Hills Press, New York & Manchester, Vir., 2005.

Book essays:

Henry Darger: 1892-1973, "Introduction aux ecrits de Henry Darger (Introduction to the Literature of

Henry Darger),” plus some 20 mini-essays and entry contributions to the “Dictionnaire Dargerien (“Darger Dictionary)” in this book-length “catalog” for the exhibition “Henry Darger 1892-1973,” Musée d’Art moderne de la Ville de Paris, France, 2015.

Photoworks: Photography, Art Visual Culture #20, Photoworks, Brighton, England, 2013.

Eroticism and Outsider Art, Raw Vision Press, London, England 2012.

Henry Darger, Prestel Press, New York/Berlin, 2009.

LECTURES/PANEL DISCUSSIONS (selection)

“Image/Text Connections in Sequential and Outsider Art.” National Art Educators Association Convention, Chicago, 2016.

“Alternative Comics and the Graphic Novel,” “Meanings of *Maus*,” and other guest lectures, Western Michigan University, Kalamazoo, Mich., 2009, 2010, 2011, 2012, 2015, and (forthcoming) 2016.

“Henry Darger Round Table,” panelist, Mona Bismarck American Center, Paris, France, 2015.

“Henry Darger: 40 Years Later,” panelist, sponsored by the American Folk Art Museum, Outsider Art Fair, New York, 2014.

“Contemporary Perceptions of Darger,” lecture, Intuit, The Center for Intuitive and Outsider Art, 2013.

“The History and Evolution of Alternative and Adult Comic Books of the 1940s-1980s,” guest lecture, University of Wisconsin-Stout, 2011.

“Henry Darger,” lecture for Intuit, The Center for Intuitive and Outsider Art, 2008.

“15th Anniversary Symposia,” panel member at Intuit: The Center for Intuitive and Outsider Art, Chicago, 2006.

“Outsider Art: Art Outside the Box,” Keynote Speaker for the Wisconsin Art Education Association Conference, University of Wisconsin-Stout, 2005.

“Art Brut: Origins and Interpretations,” panel member at Intuit: The Center for Intuitive and Outsider Art, Chicago, 2005.

“Depth-Charged Art: Henry Darger, Ivan Albright and the Nature of the Inner Life,” slide lecture at the College Art Association’s 91st Annual Conference, American Folk Art Museum, New York, 2003.

“Outside In: Self-Taught Artists and Chicago,” panel member, David and Alfred Smart Museum of Art, University of Chicago, 2002.

“Passion and Spectacle: The Writing Behind Henry Darger’s Art,” slide lectures delivered at numerous locations, including: New York University, Barney Building; Museum of Contemporary Art, Chicago; Columbia College, Chicago; Carl Hammer Gallery, Chicago; Intuit: The Center for Intuitive and Outsider Art, Chicago; Chicago Public Library; Evanston Art Center, Evanston, Ill.; Oak Park Public Library, Oak Park, Ill.; Barbara’s Bookstore, Oak Park, Ill.; Morton Grove Public Library, Morton Grove, Ill.; Oakton Community College, Skokie, Ill.; twice at Carl Sandburg High School, Orland Park, Ill. 2000-2002.

“Nathan Lerner: Paintings,” slide lecture as part of a symposium on “The Art and Design of Nathan Lerner” at the Illinois Art Gallery, Illinois State Museum, 2001.

“The Imaginary and Real Life of Henry Darger,” slide lecture, Museum of Contemporary Art, Chicago, 2001.

“The Making of Jennie Richee,” moderator of panel discussion with members of Ridge Theater, Museum of Contemporary Art, Chicago, 2001.

RADIO/TELEVISION APPEARANCES (select)

Interview with Atsushi Funahashi regarding Henry Darger for *Art Gallery Labyrinth*, Japanese television program, No. 163, broadcast Sept. 1, 2008.

Interview by Tony Sarabia regarding the play, “At Jennie Richee,” WBEZ-FM radio, Chicago, 2001.

“Henry Darger: Art and Selected Writings,” *Artistic License* with Victoria Lautman, WBEZ-FM radio, Chicago, 2000.

“Henry Darger’s Secret World,” *Artbeat Chicago*, Chicago Public Television, WTTW Channel 11, 1998.

LISA CONTE

(b) (6)

Education

Conservation Center, Institute of Fine Arts, New York University, 2007-2011

M.A. History of Art, Advanced Certificate in the Conservation of Historic and Artistic Works, specialization in paper conservation.

Hobart & William Smith Colleges, 1995-1999

B.A. *cum laude* in Studio Art and English

Professional Experience

SG Conservation, New York, NY

Paper Conservator, part-time, 2014—present

Examination and treatment of modern and contemporary works on paper, as well as collection surveys and maintenance. Provide framing, storage, and environmental recommendations. Collaborate with artists, estates and galleries on preservation related initiatives. Provide training in basic care and handling techniques for works on paper. Additional expertise in mold remediation, soot, smoke and water damage.

The Metropolitan Museum of Art, New York, NY

Sherman Fairchild Center for Works of Art on Paper and Photograph Conservation

Assistant Paper Conservator, part-time, 2013—present

Andrew W. Mellon Fellow, full-time, 2011—2013

Graduate Intern, full-time, 2010—2011

Contribute to all conservation-related aspects of the museum's collection care and exhibition program including treatment, technical research and analysis of an encyclopedic range of works on paper. Support museum education and outreach initiatives through activities including lab tours, gallery talks and teaching.

Whitney Museum of American Art, New York, NY

Project Conservator, part-time, April 2010—August 2010

Graduate Intern, part-time, October 2008—March 2010

Contributor to the Collection Documentation Initiative (CDI), a comprehensive survey of the prints and drawings collection. Prepared written condition assessments of works on paper in *The Museum System* database (TMS). For assessments, identified media, art processes, and treatment priorities.

Grants, Fellowships & Awards

2011-13 Andrew W. Mellon Fellowship, The Metropolitan Museum of Art
2008-10 H.R. Young Graduate Scholarship, Goldman, Sachs & Co.
2007-11 Institute of Fine Arts, New York University, Graduate Scholarship
1999 Judith Lowe Hyatt Prize '57, Hobart & William Smith Colleges

Publications

Conte, Lisa, Christine Frohnert, Lisa Nelson, and Julia Sybalsky. "Overcoming Obsolescence: The Examination, Documentation, and Preservation of Nam June Paik's TV Cello." *Electronic Media Review* 2 (2013):1-10.

Conte, Lisa, Katherine Sanderson, and Robert Farrell. "Room for Improvement: Designing a System for 21st Century Conservation Documentation." posted June 2011, <http://www.conservationus.org/index.cfm?fuseaction=Page.ViewPage&PageID=1526>

Conte, Lisa, Margaret Holben Ellis, Lisa Nelson, Katherine Sanderson and Eliza Spaulding. "Achieving Clarity: Glazing Solutions for Works on Paper." *Museum Management and Curatorship* 25:4 (2010): 399 – 422.

Conte, Lisa, Lisa Nelson, Katherine Sanderson and Eliza Spaulding. "A Cut Above: The Crayola Cutter as a Conservation Tool." *The Book and Paper Group Annual* 28 (2009): 133 – 136.

Teaching Experience

New York University, New York, NY

Guest Lecture for Summer Institute in Technical Art History, 2016

Topic: Print Techniques and Identification

Torrey West House, Ossabaw Island, GA

Project Leader, Preventive Conservation Short Course, 2015

Instructed in preventive conservation techniques at the the Torrey West historic house, located on a wilderness barrier island off the coast of Savannah, Georgia. Lectured on the care and handling of works on paper and an introduction to causes of paper deterioration.

New York University, New York, NY

Guest Lecture for Museum Studies, Spring 2015

Topic: Introduction to Paper Conservation and Collection Management Strategies for Works on Paper

Purchase College, Purchase, NY

Guest lecture for Art & Technology, Fall 2014

Topic: Conservation of Technology-Based Works of Art

TARA A. HART

(b) (6)

EDUCATION

2010 **M.S. Library and Information Science** / *Pratt Institute*, New York, NY

- Advanced certificates in Management of Archives, and Museum Libraries

2004 **B.A. Visual Arts – Media** / *University of California at San Diego*, San Diego, CA

- Concentration in Film and Computing and the Arts, Minor in Art History

EXPERIENCE

May 2015–Present

Archives Manager / *Whitney Museum of American Art*, New York, NY

- Oversee the arrangement and description of key archival collections including exhibition and curatorial records.
- Assist inside and outside researchers with queries related to the history of the institution and its activities.

December 2014–May 2015

Project Archivist / *Solomon R. Guggenheim Museum*, New York, NY

- Oversaw the arrangement and description of key archival collections including Performances and Public Programs recordings and Works & Process at the Guggenheim records.
- Lead Museum-wide survey to accession audiovisual recordings throughout institution.

July 2011–August 2014

Digital Archivist / *New Museum*, New York, NY

- Provided leadership and strategic planning for the Andrew W. Mellon Foundation-funded project institutional archives project, overseeing archival appraisal, arrangement, description, and preservation of over 300 linear ft. of archival material.
- Managed New Museum's Digital Archive, establishing and implementing tools, specifications, systems and workflows to manage born-digital archival material for documenting Museum exhibitions and activity.
- Activated the Museum's archival collections, through organizing the following exhibitions and programs: *Talking Back: The Audience in Dialogue* (2014), *Occupied Territory: A New Museum Trilogy* (2014), *Pushing the Limits* (2013), and *XFR STN* (2013).

June 2010–July 2011

Archivist & Assistant Curator / *NYU Fales Library & Special Collections*, New York, NY

- Processed the archival collections of the Public Art Fund and the artist collective Group Material, creating online finding aids for each collection.

June 2009–June 2010

Archivist / *Public Art Fund*, New York, NY

- Processed over two hundred linear feet of historic archival material (ca. 1968-2008).

- Assisted staff members with planning and documentation of current projects.

December 2008–January 2010

Library Assistant / *Pratt Institute Libraries*, Brooklyn, NY

- Provided reference services to students and faculty at the public services desk.

March 2007–June 2008

Archives & Publicity Intern / *Anthology Film Archives*, New York, NY

- Processed and rehoused historical press archives.

April 2006–January 2007

Media Assistant / *Cecilia Vicuña*, New York, NY

- Processed and digitalized an expansive archive of artist's slides, artworks, and moving images.

CONSULTING EXPERIENCE

April–December 2013

Institute of Contemporary Art, Philadelphia, PA

- Prepared comprehensive museum guidelines for bringing archival material documenting the Institute's 40-year exhibition history online. <http://icaphila.org/exhibitions#past>

January–May 2010

Asian American Arts Centre, New York, NY

- Assisted in the development of the AAAC's digital archive project. <http://artasiamerica.org>

PUBLICATIONS

- "How do you Archive the Sky?" *Archive Journal*, issue 5 (Fall 2015).
- Shop Talk: Archiving Performance. *Six Degrees*, New Museum, New York, April 16th, 2014.
- A Report on XFR STN: LOCKSS-Ness Monster: 'What Have We Done?!' *Six Degrees*, New Museum, New York, September 2nd, 2013 (Editor).
- On Semi-permanence & History: New Museum Digital Archive. *Metropolitan Archivist* 9, no. 1 (2013): 5-7.

MEDIA AND INTERVIEWS

- Vanessa Yurkevich. "Video: Making the Old New Again at The New Museum," *Blouin ArtInfo*, August 15th, 2013.
- Melena Ryzik. "Preserving That Great Performance: XFR STN Offers a Digital Update at the New Museum," *New York Times*, August 11th, 2013.
- Ben Valentine. "The Online Transformation of the New Museum," *Hyperallergic*, July 31st, 2012.

EXPERIENCE PROFESSIONNELLE

- 2011
à ce jour Musée d'Art Moderne de la Ville de Paris
Conservateur du patrimoine.
Commissariat d'expositions et acquisitions : don de 45 œuvres de Henry Darger, don de 21 œuvres de Karel Appel, don de 16 œuvres de Hugh Weiss, don d'une sculpture de Fausta Squatriti, achat d'une sculpture de Fausto Melotti et d'une sculpture de Lucio Fontana.
- 2012-2015 Ecole du Louvre (Paris)
Enseignement en classe préparatoire pour le concours de conservateur du patrimoine : entraînement aux épreuves de spécialité XXe siècle.
- 2011 Philadelphia Museum of Art
Dans le cadre de la formation à l'I.N.P., stage auprès de Michael R. Taylor (art moderne).
- 2010 Musée de Grenoble
Dans le cadre de la formation à l'I.N.P, stage au cabinet d'arts graphiques. Récolement et recherche des provenances des dessins anciens ; mise en place d'un projet de médiation envers les lycéens en difficulté.
- 2009 – 2010 Université François Rabelais (Tours)
Chargée de cours en histoire de l'art du XXe siècle pour les étudiants de 2^e année de Licence.
- 2005 – 2007 Galerie schleicher+lange (Paris)
Assistante de galerie.

COMMISSARIAT D'EXPOSITIONS (sélection)

- 2017 Karel Appel
Musée d'Art moderne de la Ville de Paris
- 2016 Piero Manzoni, Achrome
Musée Cantonal des beaux-arts (Lausanne, Suisse)
- 2015 Henry Darger (1892-1973)
Musée d'Art moderne de la Ville de Paris
- 2014 Lucio Fontana, rétrospective
Musée d'Art moderne de la Ville de Paris

PUBLICATIONS (sélection)

DIRECTION D'OUVRAGE

- 2017 Karel Appel (catalogue du Musée d'Art moderne de la Ville de Paris)
- 2016 Piero Manzoni, Achrome (Editions Hazan, catalogue du Musée cantonal des beaux-arts de Lausanne)
- 2015 Henry Darger – 1892-1973 (catalogue du Musée d'Art moderne de la Ville de Paris)
- 2014 Lucio Fontana, rétrospective (catalogue du Musée d'Art moderne de la Ville de Paris)

ESSAIS ET NOTICES

- 2014 La Gazette Drouot, n° 35 (17 octobre 2014)
Article « Le Musée d'Art moderne de la Ville de Paris : une politique d'acquisition dynamique. »
- 2014 Marcel Duchamp et la peinture (catalogue du Centre Pompidou)
Essai « Marcel Duchamp/Louis Michel Eilshemius : éloge de la peinture ».
- 2012 L'Art en guerre, France, 1938-1947 (catalogue du Musée d'Art moderne de la Ville de Paris)
Notices sur Salvador Dali et Yves Tanguy.
- 2010 Retour d'y voir, n° 3-4 (revue du Musée d'Art Moderne et Contemporain de Genève)
« Marcel Duchamp, 50 cc air de Paris ».
- 2008 Nuke, n° 7
« Hasard en boîte » : article sur Marcel Duchamp et le hasard pour le numéro 7 consacré au thème : Chance.

CONFERENCES

- 2015 Mona Bismarck Foundation (Paris)
Participation à la table ronde « Henry Darger ».
- Musée de l'Orangerie (Paris)
Conférence sur Adolfo Wildt et Lucio Fontana dans le cadre de l'exposition Adolfo Wildt.
- Centre Pompidou (Paris)
Participation à la table ronde « Made in Koons » dans le cadre de l'exposition Jeff Koons.
- 2014 Art Basel Salon (Bâle)
Discussion autour du catalogue raisonné des dessins de Lucio Fontana.
- Institut culturel italien (Paris)
Discussion autour de Lucio Fontana.
- College Art Association Annual Conference (Chicago)
Intervention autour de Lucio Fontana dans le séminaire : *Refiguring masculinities in conceptual art*.
- 2013 Université de Milan (Milan)
Intervention dans le séminaire d'art moderne et contemporain de Licence.
- Galerie Tornabuoni arte (Paris)
Participation à la table ronde sur Giuseppe Capogrossi.
- 2012 Palais de Tokyo / Galerie des Multiples (Paris)
Conférence sur Marcel Duchamp dans le cadre du cycle « Dada fétiche ».
- 2011 Musée National Chagall (Nice)
Conférence sur Lucio Fontana dans le cadre du cycle de conférences en esthétique et histoire de l'art.
- Maison des Arts (Malakoff)
Discussion autour de Marcel Duchamp dans le cadre du cycle Philia.

FORMATION

jan 2010 - juin 2011	<u>Institut National du Patrimoine</u> Conservateur-stagiaire du patrimoine.
2011	<u>Université Paris IV – Sorbonne</u> Diplôme de Master I de philosophie.
2007	<u>Ecole du Louvre</u> Diplôme de Recherche Appliquée. Sujet du mémoire : « La matière comme Idée, autour d' <i>Air de Paris</i> de Marcel Duchamp » sous la direction de Thierry Dufrêne. Mention : félicitations du jury. Mémoire publié en 2010 dans la revue <i>Retour d'y voir</i> par le Musée d'Art Moderne et Contemporain de Genève.
2005	<u>Ecole du Louvre</u> Diplôme de 1 ^{er} cycle, spécialités : art du XX ^{ème} siècle et art contemporain.

LANGUES

Anglais courant
Italien courant
Arménien courant
Allemand niveau moyen
Russe : notions
Néerlandais : notions

Art historian Sarah Lombardi has directed the Collection de l'Art Brut since 2013. As both its Interim Director (January 2012–February 2013) and curator (since 2007), Lombardi has coordinated a number of exhibitions both within the museum and abroad.

Prior to joining the Collection de l'Art Brut, she worked as a freelance curator in Montreal, New York, Brussels and Lausanne.

Since becoming Director at the Collection de l'Art Brut, Lombardi has created a new publication series highlighting the museum collections, *Art Brut, la collection*, which accompany the *Biennales de l'Art Brut* and focus on a certain theme and present works exclusively from the museum's holdings.

She has also published two monographs, on Aloïse Corbaz and André Robillard, in connection with the solo exhibitions on these two historically major creators, as presented in 2012 (Corbaz) and 2014–2015 (Robillard).

In addition, Lombardi is continuing the *L'Art Brut* fascicle series launched by Jean Dubuffet in 1964, ensuring the release of **Issue No. 25 for the series's fiftieth anniversary. Lombardi has** contributed countless articles on art brut over the years to various exhibition catalogues and specialized journals.

LEISA RUNDQUIST

lrundqui@unca.edu

University of North Carolina Asheville
Department of Art 240 Owen Hall
One University Heights
Asheville, NC 28804

EDUCATION

- PhD 2007 The University of North Carolina at Chapel Hill
Art History Dissertation: "Pyre: A Poetics of Fire and Childhood in the Art of Henry Darger"
Advisor: Carol Mavor, PhD
Areas of Specialization: Modern / Contemporary art & theory, Self-taught art
- MA 1990 The University of Illinois at Urbana-Champaign
Art History Thesis: "Collages for Robert: Joseph Cornell Works of the 1960s & 1970s"
Advisor: Katherine Manthorne, PhD
- BFA 1987 The University of Illinois at Urbana-Champaign
Art History

PROFESSIONAL EXPERIENCE

- 2016- Guest Curator, *Betwixt and Between: Henry Darger's Vivian Girls*, Intuit: The Center for Intuitive and Outsider Art, Chicago, April 14 – September 4, 2017
- 2014- Chair, Department of Art & Art History, University of North Carolina Asheville
- 2014 Guest Curator, *Social Geographies: Interpreting Space and Place*, Asheville Art Museum January 18 – May 18, 2014
- 2013- Associate Professor, Art History, University of North Carolina Asheville
- 2013-14 Chair Elect, Department of Art & Art History, University of North Carolina Asheville
- 2007-12 Assistant Professor, Art History, University of North Carolina Asheville
- 2004-07 Instructor, Art History, North Carolina State University, Raleigh, NC
- 2001-03 Teaching Assistant, Art History, University of North Carolina at Chapel Hill
Instructor of Record
- 2000-01 Assistant to Director of Education, Department of Emergency Medicine, University of North Carolina at Chapel Hill
- 1990-2000 Curator, South Bend Regional Museum of Art, South Bend, IN
Responsible for exhibition program of thirty indoor shows and six outdoor shows per year; Researched and developed two major exhibitions per year; Conducted studio visits with regional and national artists; Coordinated educational programs with Dir. of Education and docents; Researched, developed, and maintained a permanent collection of eight hundred objects; Co-authored grants (NEA special project & conservation, Institute of Museum Services, Indiana Arts Commission); Committee service
- 1994-2000 Instructor, Art History, Saint Mary's College, Notre Dame, IN
- Summer Curatorial Intern, The National Museum of American Art, Smithsonian Institution, Washington, D.C.
- 1989 Researched objects for the exhibition, *Made with Passion: The Hemphill Folk Art Collection*
- 1988-89 Curatorial Assistant, Krannert Art Museum & Kinkead Pavilion, University of Illinois, Urbana-Champaign

Catalogued photography collection; Assisted with relocation and organization of photographs in new print study room; Edited interpretive gallery labels; Assisted Curator and Registrar with exhibition catalogue preparation

1988-89 Graduate Assistant, Art & Architecture Slide Library, University of Illinois, Urbana-Champaign

FELLOWSHIPS, GRANTS, AWARDS

2016-2017 UNC Asheville Interdisciplinary Block Grant (\$1000) Art Entrepreneurship curriculum development

2015-2016 UNC Asheville University Teaching Council Grant (\$750) Research travel to Gee's Bend, AL

2015-2016 UNC Asheville Interdisciplinary Block Grant (\$1000) *Visual Cultures of the American South* curriculum development

2013-14 UNC Asheville University Research Council Faculty Grant (\$750) Research travel for *Social Geographies* exhibition

2013-14 UNC Asheville Integrative Liberal Studies Block Grant (\$1000) Student field trips affiliated with *Social Geographies* exhibition

2013 UNC Asheville Faculty Development Fund Grant (\$750) Research travel to Intuit, Chicago

2012-13 UNC Asheville Excellence in Teaching Award for the Humanities

2010-11 UNC Asheville University Research Council Faculty Grant (\$750) Conference travel

2010-11 Nominee, UNC Asheville Teaching Award

2008-09 Nominee, UNC Asheville Teaching Award

2005-06 Terra Foundation for the Arts and American Council of Learned Societies Dissertation Fellowship in American Art

2005-06 Dissertation Research Fellowship, The Graduate School, UNC Chapel Hill

2004-05 Merit-based Dissertation Research Award, UNC Chapel Hill in cooperation with the Henry Luce Foundation

2004-05 Clemens E. Sommer Prize in Art History, Merit-based award, UNC Chapel Hill

2003 Art Department Research Travel Award, UNC Chapel Hill

1996 Nominee, Woman of the Year in the Arts, 1996 YWCA Tribute to Women Program, St. Joseph County, Indiana

1991 Travel Award, Curators' Committee of the American Association of Museums, American Association of Museums Conference, Denver, CO

PUBLICATIONS

2016 [forthcoming] Review of Valerie Rousseau, editor. *When the Curtain Never Comes Down: Performance Art and the Alter Ego*. New York: American Folk Art Museum, 2015 for CAA Reviews, College Art Association

2016 [forthcoming] "Pictures of Fire Big or Small: Henry Darger's Macabre Scrapbook," an essay on the convergence of childhood, tragic fires, and self-reflexive narrative in Henry Darger's scrapbook, "Pictures of fires big or small in which firemen or person lose their lives," c. 1960, *The Outsider*, Intuit, Chicago

2016 Book chapter manuscript in progress on the reception and representation of Gee's Bend quilts, co-authored with Dr. Karin Peterson for *A Companion to Textile Culture*, edited by Dr. Jennifer Harris, Wiley-Blackwell Publishing

2014 "Vivam! The Divine Intersexuality of Henry Darger's Vivian Girl," *Elsewhere: The International Journal of Self-Taught and Outsider Art*, Issue 2 (May 2014): 24-42.

Deborah Wythe

(b) (6)



Education

New York University, Graduate School of Arts & Science, Department of Music. M.A. 1980; Ph.D. 1990 (musicology).

National Archives & Records Administration, Modern Archives Institute. Certificate in Archival Management, 1986.

Ithaca College, School of Music. B.Mus. 1974, cum laude.

Employment

2005- Brooklyn Museum. Head, Digital Collections and Services.

1986-2005 Brooklyn Museum. Archivist & Manager of Special Library Collections, 1992-2005; Archivist, 1986-92.

1984-86 LaGuardia Archives, LaGuardia Community College, The City University of New York. Assistant Archivist; Curator, Steinway Collection.

1979-80 The Metropolitan Museum of Art, Department of Musical Instruments. Organized and described Crosby-Brown archives.

1979-80 New York University, Graduate School of Arts & Science. Teaching assistant.

1979-82 American Recorder Society, Early Music Workshop at Amherst College. Director, Musical Instrument Makers' Fair.

1978-79 Professor Jan LaRue, New York University. Research Assistant. 1974-77 Windham, Connecticut. Instrumental music teacher.

Professional activities

METRO, Metropolitan New York Library Council. Digitization Advisory Council, 2005-2013.

Society of American Archivists. Task Force on the Annual Meeting, 1997-98; Education and Professional Development Committee, 1998-2000. Publications Board, 2004-11. Appointed Fellow, 2011.

Museum Archives Section, Society of American Archivists. Chair, 1996-1998. Vice-chair/Chair-elect, 1995-96. Section working group leader: appraisal of museum records, art restitution, 1997-98. Editor, *Museum Archivist*, Newsletter of the Museum Archives Section, Society of American Archivists. 1988-1995.

Archivists Round Table of Metropolitan New York. Awards Committee, 2002-2003. Award for Archival Achievement, 2006.

Publications and presentations

Contributor: *Rights & Reproductions: The Handbook for Cultural Institutions*, Indianapolis Museum of Art and American Alliance of Museums, 2014-15.

Panelist: The Evolving Role of Visual Resource Professionals, "Brooklyn Museum Digital Lab" Visual Resource Association, March 2015

"Inventing Museum Archives," *Museum Archivist* (Winter 2015).

Panelist: IP, OA and DAMs! Oh My! "Leverage and Balance: IP, DAMS, CMS, Open Access at the Brooklyn Museum" Museum Computer Network, November 2014.

Panelist: Broaden Your Impact: Making Collection Content More Openly Accessible. "The Brooklyn Museum Copyright Project.", Visual Resources Association, April 2013

"Exhibition Records: Analog to Digital." Museum Computer Network, November 2011.

Keynote address, Copyright Camp, University of Michigan, Ann Arbor, July 2011.

Panelist: Developing and Distributing Museum Content: Navigating the Sea of New Apps, Platforms, and Hosting Options. "The Brooklyn Museum Copyright Project." ALI-ABA Legal Issues in Museum Administration, Washington, DC, March 2011.

"Retooling museum archives for the 21st century: new collections, new audiences, new partnerships, new technologies." I Internacional Seminar on Museum Archives and Research, Museum of Contemporary Art, University of São Paulo, Brazil, November 2009.

Panelist, "Get the Picture: Experiences in Selecting and Implementing Digital Asset Management Systems in Museums." Museum Computer Network annual meeting, November 2006.

Panelist, "Library, Archives, and Museum Collaborations: Audience and Access Issues." ACRL Rare Books and Manuscripts Section annual meeting, June 2006. Published as "New Technologies and the Convergence of Libraries, Archives, and Museums" in *RBM: A Journal of Rare Books, Manuscripts, and Cultural Heritage* (Spring 2007).

Panelist, "To Keep or Not to Keep: Strategies for Establishing an Archive and Records Management Program." American Association of Museums annual meeting. May 2005.

"Searching for a simple and sustainable model for digital imaging." Paper, Archivists Round Table of Metropolitan New York, January 2005; METRO DigiSig. May 2005.

Editor, *Museum Archives: An Introduction* (2nd edition), Society of American Archivists, 2004.

Chapter author: The Museum Context; Description; Appraisal; Records Surveys; Photographs.

Panelist, "Archival Sources for Researching Holocaust-era Looted Art." Symposium on Records and Research Relating to Holocaust-era Assets, National Archives and Records Administration. December 1998 (www.archives.gov/research_room/holocaust_era_assets/symposium_papers/recordkeeping_in_museums.html).

"You Want it When? Practical Description Strategies for Internal Use." Paper, Mid-Atlantic Regional Archives Conference. Spring 1998.

Discussion leader, "Beyond 'Just in Case': Appraising Museum Records," Society of American Archivists Annual Meeting, Museum Archives Section working group. August 1997.

"Access and Description Issues in the Culin Collection." Paper, Society of American Archivists Annual Meeting. August 1997.

Panelist, "Accessibility of Records." Mid-Atlantic Regional Archives Conference. Spring 1997.

Discussion leader, "Archivists Face to Face: Cultural Institutions." Mid-Atlantic Regional Archives Conference. Fall 1996.

Guide to the Culin Archival Collection (with Deirdre Lawrence, et al). Project coordinator, 1996. First prize, 1996 finding aids competition, Mid-Atlantic Regional Archives Conference.

"Database for Culin Archival Collection Developed." *Museum Archivist* (September 1996).

Panelist, "Management Issues in Small Archives." Mid-Atlantic Regional Archives Conference. Fall 1995.

"New Resources on Brooklyn Artists at The Brooklyn Museum." *Museum Archivist* (September 1995).

VALÉRIE ROUSSEAU

Resume – CV

EDUCATION

2004-2012	Philosophiae Doctor, Ph.D. / Art History Université du Québec à Montréal, Montréal With seminars in 2005-2006 at the Sorbonne–Université Paris I (Dr. Dominique Poulot) & École des Hautes Études en Sciences Sociales (EHESS) (Dr. Daniel Fabre), Paris. Advisor: Dr. Raymond Montpetit
2005-2006	Master en Sciences Sociales, M. Sc. / Ethnology & Anthropology École des Hautes Études en Sciences Sociales (EHESS), Paris Advisor: Dr. Daniel Fabre
1996-1999	Maître ès arts, M.A. / Art History Université du Québec à Montréal (Art History Department), Montreal Advisor: Dr. Raymond Montpetit
1993-1996	Baccalauréat ès arts (BA) / History & Art History Université de Montreal, Montreal Major in Art History (2 years) and Minor in History (1 year)

EDUCATIONAL GRANTS

2005 – 2008	FQRSC – Fonds québécois de recherche sur la société et la culture Quebec. Ph.D. excellence grant. Ranked first in qualification process
2006 – 2007	Musée de la civilisation de Québec & Desjardins Foundation Quebec. Ph.D. excellence grant
2006	École des Hautes Études en Sciences Sociales (EHESS) Paris. Ethnology and anthropology Master's Degree Program

RESEARCH ASSOCIATE

2005 – present	LAHIC-iiAC-CNRS – Laboratoire sur l’anthropologie et l’histoire de l’institution de la culture, Paris
2006 – 2007	Researcher in residency. Bibliothèques et Archives Nationales du Québec, Montreal
2004 – 2005	Canadian Museum of Civilization, Gatineau. Ref. Jean-François Blanchette, Curator
1998	Internship. SPACES, Los Angeles

AFFILIATION WITH GROUPS

2012 – present	Member. International Committee, College Art Association, New York
2009 – present	Advisory Board. Nek Chand Foundation, Chandigarh, India
2006 – present	Friends of Leonard Knight. Saving and Protecting <i>Salvation Mountain</i> , Los Angeles
2008 – 2010	Scientific Committee. Institut International de Recherches et d'Explorations sur les Fous Littéraires (IIREFL), Paris
2006 – 2007	Member. Artification, iiAC-CNRS, Paris
2004 – 2007	Member. GTAP (Groupe de travail en art populaire), Quebec

EXHIBITIONS CURATED

2015	<i>Alter Ego: Performance in Art Brut</i> Collection de l'Art Brut, Lausanne
2015	<i>Panacea: The Art of Healing and Protection</i> Collection de l'Art Brut, Lausanne Co-curator: Sarah Lombardi.
2013	<i>Tribute to Mario del Curto</i> Outsider Art Fair, New York
2012	<i>Collectors of Skies</i> Andrew Edlin Gallery, New York. Collective exhibition including the works of Sonja Brass, Henry Darger, Charles A.A. Dellschau, Chris Doyle, Janko Domsic, Guo Fengyi, Victor Hugo, Clay Ketter, Zdenek Kosek, Mole & Thomas, Vik Muniz, Dorothy, Napangardi, Alain Palement, Nicolas Reeves, Clémentine Ripoché, Achilles Rizzoli and Palmerino Sorgente. Co-curator: Barbara Safarova.
2012	<i>Sava Sekulić, Charles Steffen, Guo Fengyi</i> Andrew Edlin Gallery, New York.
2010	<i>Henry Darger</i> Andrew Edlin Gallery, New York.
2010	<i>ACM, Mansaray, Rigo 23 & Volyazlonsky</i> Andrew Edlin Gallery, New York.
2008-2009	<i>James Castle: Selected Works</i> Andrew Edlin Gallery, New York.
2007-2008	<i>Richard Greaves: Architect</i> 1. Centre International pour la Ville, l'Architecture et le Paysage (CIVA), Brussels
2007-2008	2. Art en Marge, Brussels
2006-2007	3. Collection de l'Art Brut, Lausanne (Switzerland)
2007	4. Pulperie de Chicoutimi, Chicoutimi (Canada)
2006	5. Andrew Edlin Gallery, New York
2005	6. Darling Foundry Quartier Éphémère, Montreal Co-curator: Sarah Lombardi.

EDUCATION:

Queens College, Flushing, NY

Graduated 12/2012

Master of Library Science, Certificate in Archival Studies

CUNY Baccalaureate Program, New York, NY

Graduated 6/2010

Bachelor of Arts double major in Public History, Gender Studies

EXPERIENCE:

Calder Foundation — New York, NY

Image Archivist [full-time]

5/2013 – Present

- Cataloguing and maintaining the Foundation's collection of historic photographs and digital files using FilemakerPro
- Managing projects to digitize the Foundation's archives
- Managing interns
- Photographing works of art for reference or archival purposes
- Prepare digital images for publications or web use with Adobe Photoshop
- Work with Intellectual Property department in documenting copy and reproduction rights, and monitoring image banks for violations of the artist's intellectual property

Private Individual — New York, NY

12/2012 – 5/2013

Independent Consultant [part-time]

- Digitized a family heirloom journal written from 1901-1902
- Optimized digital images using Adobe Photoshop and Acrobat
- Re-housed family photograph collection in archival quality materials

New Museum of Contemporary Art — New York, NY

8/2012 – 12/2012

Graduate Intern [part-time]

- Cataloged digital materials in Collective Access, using Dublin Core and Library of Congress Subject Headings
- Created machine-readable derivatives of materials using Adobe Photoshop and Acrobat
- Researched material related to institutional history and public programming for inclusion in the digital archive

American Jewish Historical Society — New York, NY

8/2012 – 12/2012

Graduate Intern [part-time]

- Processed collections that include correspondence, newspaper clippings, and photographs
- Applied MPLP standards
- Made preservation photocopies of acidic material

United Nations / Radu Architects — Long Island City, NY

4/2012 – 8/2012

Project Archivist [full-time]

- Created an inventory and re-housed 16,000 architectural drawings related to the construction of the UN Headquarters in New York

MIMI LESTER

(b) (6)

- Wrote a best-practices guide recommending storage for the various types of architectural drawings in the collection

Brooklyn College Library — Brooklyn, NY

3/2010 – 3/2012

Project Archivist [full-time]

- Managed a team of three part-time staff and five graduate and undergraduate interns to process the Hank Kaplan Boxing Archive, a 700 linear foot collection
- Wrote and edited a DACS-compliant finding aid
- Cataloged material both on the object and folder levels
- Encapsulated fragile items and made phase boxes for scrapbooks
- Independently processed the following subgroups: Photographs, Scrapbooks, Ephemera
- Worked with the library cataloger to create a MARC record for the collection
- Promoted the collection using Facebook and Twitter

Brooklyn College History Dept. — Brooklyn, NY

8/2010 – 8/2011

Non-Teaching Adjunct / Assistant Archivist [part-time]

- Processed collections and wrote finding aids related to Brooklyn history
- Coordinated the Archival Studies undergraduate minor
- Organized and moderated a monthly lecture series highlighting archival collections
- Designed posters, brochures and bookmarks advertising the minor and events
- Researched grants using the Foundation Directory Database

Lesbian Herstory Archives — Brooklyn, NY

6/2008 – 1/2012

Volunteer Coordinator [part-time]

- Worked on the OPAC committee; included grant research and writing
- Provided reference guidance and tours to researchers, casual browsers, and groups
- Maintained database records with InMagic, WebPublisherPro and DBTextworks
- Processed the zine collection

SKILLS:

- Excellent written and verbal communication skills, highly detail-oriented with solid research skills
- Proficient in Windows, Mac OS, Microsoft Office Suite, Adobe Photoshop, Acrobat
- Experience with DACS, MARC, Dublin Core, AAT, and Library of Congress Subject Headings
- Experience with assorted collection management software systems including: FilemakerPro, Collective Access, InMagic, WebPublisherPro, DBTextworks. Additional coursework training with Archivist's Toolkit, PastPerfect, Omeka, and The Museum System
- Coursework training in EAD, CCO, AACR2, RDA

American Folk Art Museum - Digital Asset Manager

(July 6, 2016)

Title: Digital Asset Manager

Department: Collections

Reports to: Chief Registrar

Overview

The American Folk Art Museum (AFAM) seeks a Digital Asset Manager as part of a Leir Charitable Foundations grant-funded project. The goal of the project is to create and make available digital images and catalog records for every object in the AFAM collection. The Digital Asset Manager position is a 12-month, full time role, and will report directly to the AFAM Chief Registrar.

Responsibilities:

- Participate in configuration and testing of the DAM, including working with the outside vendor
- Develop, maintain, and assign metadata for assets, incorporating industry standards to ensure accurate usage rights
- Assess, organize and prepare for migration digital assets of permanent collection images, exhibition files, past events and publications, archive and library material, and other types of files as needed
- Manage day-to-day oversight, coordination, and use of the DAM. Establish user groups, roles and boundaries for the use of DAM; registering users to the Digital Asset Management system based on permissions.
- Work closely with events and education staff to ensure that video and photos from events are uploaded, organized, tagged, and archived in a timely way
- Scan archival photographs and upload to the DAM, applying metadata as appropriate
- Receive, track and respond to inquiries and requests for digital assets from internal and external asset users; fulfill image requests via secure file transfer
- Photo edit/re-touch images when necessary
- Operate with an understanding of legal issues, digital rights management, and create solutions that serve both creative and legal requirements.
- Serve as liaison to our contracted rights and reproductions management organization

Qualifications:

- Masters degree in Library Science, Information Management and/or equivalent experience
- 1-2 years experience managing digital assets
- Strong interpersonal, communication skills and a collaborative spirit required. Ability to receive and delegate directions, and maintain strong sense of organization
- Basic Photoshop, scanning and other digital imaging skills
- Experience with The Museum System (TMS) or other collection management system preferred

The American Folk Art Museum provides equal opportunity to all employees and applicants for employment without regard to race, color, religion, creed, sex, sexual orientation, national

origin, ancestry, age, mental or physical disability, pregnancy, alienage or citizenship status, marital status or domestic partner status, genetic information, genetic predisposition or carrier status, gender identity, HIC status, military status and any other category protected by law in all employment decisions, including but not limited to recruitment, hiring, compensation, training and apprenticeship, promotion, upgrading, demotion, downgrading, transfer, lay-off and termination, and all other terms and conditions of employment.

*Please note that the Museum is located at 2 Lincoln Square, on the Upper West Side.

Administrative offices are located at the Museum's Collections and Education Center in Long Island City, Queens. The Digital Asset Manager will be based in Queens at the Collections and Education Center. This is a full-time, salaried position. Hours are 9:30-5:30 pm. The Museum offers a generous benefits package with full medical and dental, as well as vacation, sick, personal and comp days extended to full-time employees.

How to Apply: Send cover letter and CV to: Mimi Lester, Rapaport Archivist, MLester@folkartmuseum.org with the position title in the subject line. Please, no phone calls.



ArchivesSpace

A Guide to the Henry Darger Papers A0006

This finding aid was produced using ArchivesSpace on June 15, 2016.

English

Describing Archives: A Content Standard

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The Art of Henry Darger



144 At Jennie Richee. Waiting for the blinding rain to stop. (double-sided) and 145 At Jennie Richee. Hard pressed and harassed by the storm (double-sided)

Henry Darger (1892–1973), Chicago, Illinois, United States, 1950–1970

Watercolor, pencil, carbon tracing, and collage on pieced paper, 24 × 107 3/4"

Museum purchase with funds generously provided by John and Margaret Robson © Kiyoko Lerner

Photo credit: James Prinz



Detail of 145 At Jennie Richee. Hard pressed and harassed by the storm (double-sided)

The Art of Henry Darger

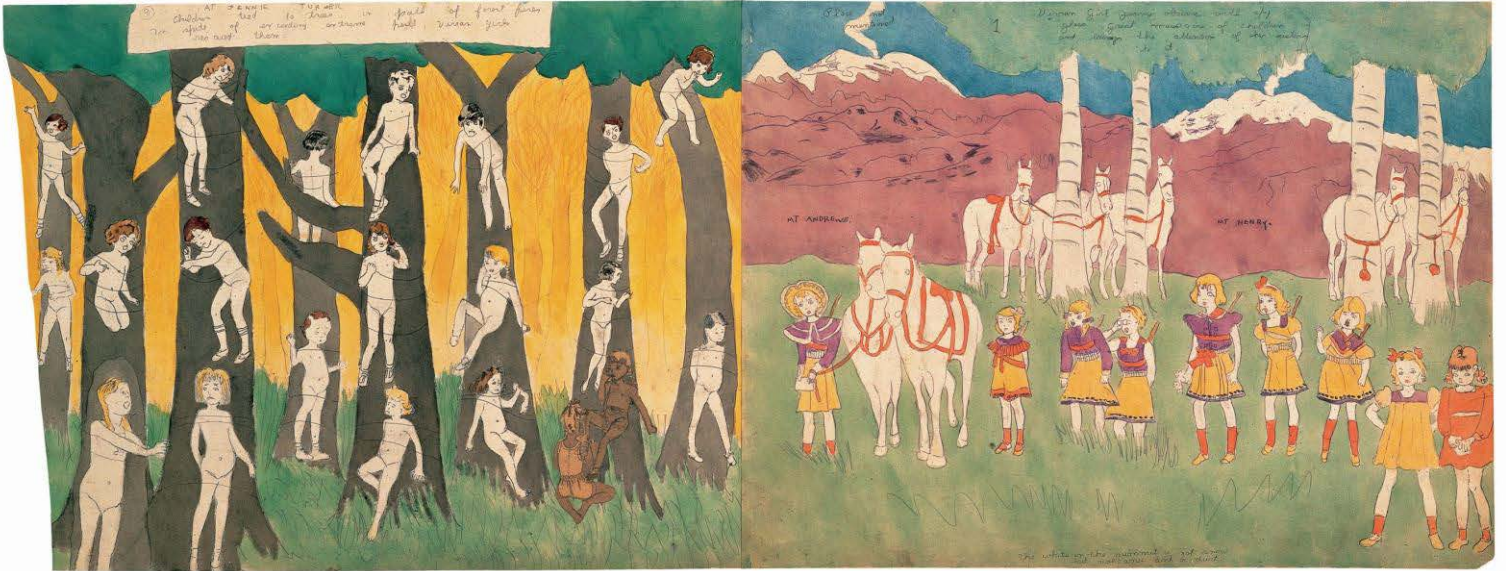


172 At Jennie Richee. Storm continues. Lightning strikes shelter but no one is injured. (double-sided) and 175 At Jennie Richee. Everything is allright though storm continues. (double-sided) - Henry Darger (1892–1973), Chicago, Illinois, United States, Mid-twentieth century
Watercolor, pencil, carbon tracing, and collage on pieced paper, 24 × 108 3/4"
Anonymous gift in recognition of Sam Farber © Kiyoko Lerner



Detail of 175 At Jennie Richee. Everything is allright though storm continues. (double-sided)

The Art of Henry Darger



At Jennie Turner Children tied to trees in path of forest fires. In spite of exceeding extreme peril, Vivian girls rescued them I Vivian Girl Jennie observes with spy glass great massacre of children and brings the attention of her sisters to it. (double-sided)

Henry Darger (1892–1973), Chicago, Illinois, United States, Mid-twentieth century
Watercolor, pencil, colored pencil, and carbon tracing on pieced paper
18 × 47 1/2"

Credit: Gift of Carl Lobell and Kate Stettner in honor of Frank Maresca © Kiyoko Lerner



The Art of Henry Darger



At battle of Drosabellamaximillian. Seeing Glandelinians retreating Vivian girls grasp Christian banners, and lead charge against foe (double-sided)

Henry Darger (1892–1973), Chicago, Illinois, United States, Mid-twentieth century

Watercolor, pencil, and carbon tracing on pieced paper

19 × 47 3/4"

Credit: Museum purchase © Kiyoko Lerner



The Art of Henry Darger



18 At Norma Catherine. But wild thunderstorm with cyclone like wind saves them. (double-sided)

Henry Darger (1892–1973), Chicago, Illinois, United States, Mid-twentieth century

Materials: Watercolor, pencil, colored pencil, and carbon tracing on pieced paper

19 1/8 × 47 3/4"

Credit: Museum purchase © Kiyoko Lerner

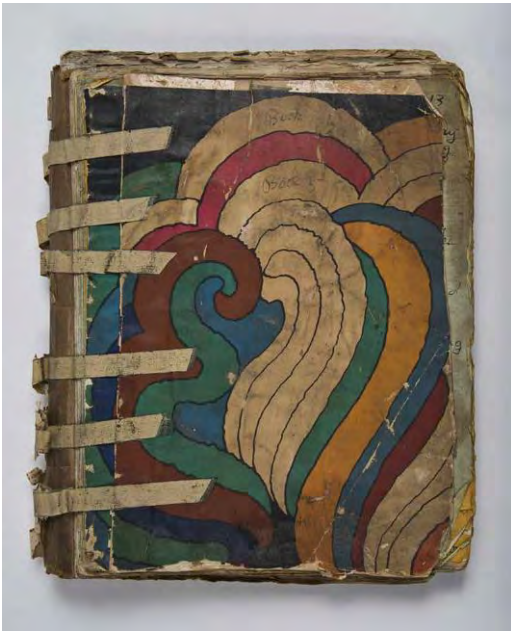


The Art of Henry Darger



The Story of the Vivian Girls, in what Is Known as the Realms of the Unreal, of the Glandeco-Angelinian War Storm, Caused by the Child Slave Rebellion (volume 1)

Henry Darger (1892-1973)



The History of My Life

Henry Darger (1892-1973)

Exhibitions of the work of Henry Darger

2015

Henry Darger (1892-1973), Musée d'Art moderne de la Ville de Paris, Paris, France

2012-2013

Henry Darger. Landscapes, Ricco Maresca Gallery, New York, New York

Henry Darger Exhibition with other outsider artists, Hyogo Museum at Hyogo Prefecture, Japan, collaboration with Yomiuri Newspapers, Museum co-operation, abcd

2011

Henry Darger, American Innocence, Welcome to the Realms of the Unreal, La foret Museum Harakujū, Tokyo, Japan

2010

Henry Darger: The Certainties of War, American Folk Art Museum, New York, New York

Henry Darger, Andrew Edlin Gallery, New York, New York

Up Close: Henry Darger and the Coloring Book, American Folk Art Museum, New York, New York

The Private Collection of Henry Darger, American Folk Art Museum, New York, New York

2008

Up Close: Henry Darger, American Folk Art Museum, New York, New York

Henry Darger Room Collection (exposition permanente ouverte en janvier 2008), Intuit: The Center for Intuitive and Outsider Art, Chicago, Illinois

Henry Darger, Intuit: The Center for Intuitive and Outsider Art, Chicago, Illinois

Darger Discoveries. Andrew Edlin Gallery, New York, New York

Henry Darger Exhibition with other outsider artists, Contemporary Museum, Shiga Prefecture, Japan, collaboration with abcd

2007

Drawn from the Home of Henry Darger, Smart Museum of Art, University of Chicago, Chicago, Illinois

Henry Darger: A Story of Girls at War, Of Paradises Dreamed, Hara Museum of Contemporary Art, Tokyo, Japan in collaboration with the Nathan and Kiyoko Lerner Foundation

2006

Henry Darger, The Vivian Girls Emerge, Andrew Edlin Gallery, New York, New York

Bruit et Fureur : L'Oeuvre de Henry Darger (Sound and Fury : The Art of Henry Darger) , La Maison Rouge, Paris, France

Henry Darger : Highlights from the American Folk Art Museum, The Andy Warhol Museum, Pittsburgh, Pennsylvania

Henry Darger, Frye Art Museum, Seattle, Washington

2005

Henry Darger Exhibition with other outsider artists, House of Shiseido, collaboration with Shiseido

2004

Henry Darger: Art and Myth, Galerie St. Etienne, New York, New York

Henry Darger Exhibition with other outsider artists, Mercian Karuizawa Museum, Nagano Prefecture, Japan, in collaboration with Villeneuve d'Ascq, Lille Métropole Modern Museum, Villeneuve d'Ascq, France

2003

Henry Darger, Magasin 3 Stockholm Konsthall, Stockholm, Sweden

Visions Realized : The Paintings and Process of Henry Darger, Intuit : The Center for Intuitive and Outsider Art, Chicago, Illinois

2002

Henry Darger: In the Realms of the Unreal, The Watari-Um Museum of Contemporary Art, Tokyo, Japan

Studies and Sketches : Henry Darger, Eva and Morris Feld Gallery, American Folk Art Museum, New York, New York

2001

Darger: The Henry Darger Collection at the American Folk Art Museum, American Folk Art Museum, New York, New York

Henry Darger, KW Institute of Contemporary Art, Berlin, Germany

2000

Henry Darger : Realms of the Unreal, Carl Hammer Gallery, Chicago, Illinois

New Works by Henry Darger, Galerie St. Etienne, New York, New York

1999

Henry Darger and his Realms, Galerie St. Etienne, New York, New York

1997

Henry Darger, Les aventures des Vivian Girls, Ginza Art Space Shiseido, Tokyo, Japan, in collaboration with Collection de l'Art Brut, Lausanne, Switzerland

1996

Henry Darger: The Unreality of Being, The University of Iowa Museum of Art, Iowa City , Iowa; American Folk Art Museum, New York, New York (1997), Yerba Buena Center for the Arts, San Francisco, California (1997); The High Museum of Art, Atlanta, Georgia (1997); Chicago Public Library Cultural Center, Chicago, Illinois (1998)

Henry J. Darger: Dans les Royaumes de l'Irréel, Collection de l'Art Brut, Lausanne, Switzerland

1993

Henry Darger Exhibition with other outsider artists, Setagaya Museum, Tokyo, Japan, in collaboration with LA County Museum & Asahi News Papers

1987

Henry Darger, Rosa Esman Gallery, New York, New York

Henry Darger, Phyllis Kind Gallery, New York, New York

The Extraordinary Art of Henry Darger, (graduate student exhibition), Krannert Art Museum, University of Illinois at Urbana-Champaign, Champaign, Illinois

1980

The Drawings of Henry Darger, Phyllis Kind Gallery, New York, New York

1977

The Realms of the Unreal, Hyde Park Art Center, Chicago, Illinois

Collected by Choghakate Kazarian

<http://officialhenrydarger.com/>

NEH Application Cover Sheet (PW-234859)

Humanities Collections and Reference Resources

PROJECT DIRECTOR

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Field of expertise: Library Science

INSTITUTION

Detroit Institute of Arts
Detroit, MI 48202-4008

APPLICATION INFORMATION

Title: *NEH Foundation Project to Assess the Detroit Institute of Arts Archives*

Grant period: From 2016-05-01 to 2017-07-31

Project field(s): Arts, General

Description of project: The Detroit Institute of Arts seeks a Humanities Collection and Reference Resources Foundation Grant of \$40,000 to be matched with \$53,304 in DIA funds to establish intellectual control over its archives. This will be accomplished via a holdings survey and assessment of the humanities value of unprocessed archival documents held at the DIA. The project will 1) capture the current scope of materials housed in the Archives, 2) analyze and evaluate the humanities content of the Archives, 3) improve control over the collection, 4) assess unprocessed materials in the Archives against updated records retention schedules, 5) identify preservation issues, and 6) recommend next steps towards improving access to the archives and stewardship of these important documents.

BUDGET

Outright Request	40,000.00	Cost Sharing	53,304.00
Matching Request	0.00	Total Budget	93,304.00
Total NEH	40,000.00		

GRANT ADMINISTRATOR

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Project Description:

The Detroit Institute of Arts' (DIA) encyclopedic art collection illuminates 8,000 years of human culture across six continents. This past year, the collection was hailed as "one of America's great treasures" by Ford Foundation President Darren Walker. The American Alliance of Museums called the artworks, "uniformly of the highest quality with the word 'masterpiece' applicable to many," during their 2012 re-accreditation of the museum. Written records exist for nearly all 65,000 objects held at the DIA that are as important to the humanities as the artworks they complement and describe. The museum's 13,100 square foot Research Library & Archives (RL&A—referred to as Archives when referring to only the archival area of RL&A) house these documents, which date back to 1883—two years prior to the DIA's 1885 incorporation. These records include original correspondence from individuals such as:

- Britain's Joseph Duveen, the most influential art trader of his time;
- DIA patron Edsel B. Ford, Henry Ford's son and noted art collector;
- Howard Carter, the Egyptologist who discovered King Tutankhamun's tomb; and
- American artist James McNeill Whistler, as well as other notable U.S.-born painters such as Thomas Cole and Mary Cassatt.

Through 1969, The DIA held the Archives of American Art (AAA), the world's most widely used research center. It was dedicated to collecting, preserving, and providing access to primary sources that document the history of the visual arts in America. The DIA transferred the AAA to the Smithsonian Institution in 1970 due to the costs of keeping a national archive at an institution not primarily supported with federal funds. Since that time, the DIA has created its own Archive and Records Center, which was assimilated by the DIA Research Library in 2002. Unfortunately, nearly all archival activities at the DIA stopped thirty years ago, following severe museum-wide budget cuts, the dissolution of the DIA's archival team, and most recently the largest municipal bankruptcy in American history. Therefore thirty years of records, including artist correspondence, directors and curators' papers, and acquisition documents, have not received archival treatment. As a first step, to restoring museum archival activities to their former prominence, *The DIA proposes a NEH Humanities Collection & Reference Resources foundation project (beginning in May 2016) to establish intellectual control of its archives. This will be accomplished via a holdings survey and assessment of the humanities value of unprocessed archival documents held at the museum.*

Materials within these archives can be studied across several disciplines and among many fields of research in the humanities. Areas of interest include themes such as the history of art connoisseurship, art dealers (European and American), 19th – 21st century artists, American museums, art conservation, art curation, museum governance and art patronage.

A DIA team will work with experts in disciplines that include: curatorial, archival, academic, literary, performing arts, library and information science, and documentary film to complete a foundation project that will: 1) capture the current scope of materials housed in the Archives, 2) analyze and evaluate the humanities content of the Archives, 3) improve control over the collection, 4) assess unprocessed materials in the Archives against updated records retention schedules, 5) identify preservation issues, and 6) recommend next steps towards improving access to the archives and stewardship of these important documents.

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Significance

Relevance of the Collection to the Humanities:

The Detroit Institute of Arts' (DIA) encyclopedic art collection illuminates 8,000 years of human culture across six continents. This past year, the collection was hailed as “one of America’s great treasures” by Ford Foundation President Darren Walker. The American Alliance of Museums called the artworks, “uniformly of the highest quality with the word ‘masterpiece’ applicable to many,” during their 2012 re-accreditation of the museum. Written records exist for nearly all 65,000 objects held at the DIA that are as important to the humanities as the artworks they complement and describe. The museum’s 13,100 square foot Research Library & Archives (RL&A—referred to as Archives when referring to only the archival area of RL&A) house these documents, which date back to 1883—two years prior to the DIA’s 1885 incorporation. These records include original correspondence from individuals such as:

- Britain’s Joseph Duveen, the most influential art trader of his time;
- DIA patron Edsel B. Ford, Henry Ford’s son and noted art collector;
- Howard Carter, the Egyptologist who discovered King Tutankhamun’s tomb; and
- American artist James McNeill Whistler, as well as other notable U.S.-born painters such as Thomas Cole and Mary Cassatt.

These first-person accounts (from art patrons, scholars, artists, museum employees, local politicians and more) document the development of one of the world’s great art collections. Artists represented in the collection include John James Audubon, Alberto Giacometti, Georgia O’Keeffe, Andy Warhol, Edgar Degas, Jan van Eyck, Pieter Brueghel the Elder, and Pablo Picasso. Records in the archives include a 1922 cable from former DIA Director William Valentiner that describes how he found, purchased and brought to Detroit the first Vincent van Gogh and Henri Matisse paintings acquired by an American museum. Other Valentiner papers describe the commission of Diego Rivera’s *Detroit Industry* murals, which were painted on the walls of the museum’s central court in 1932-1933. The room, now a federally designated national landmark, was called, “probably as close as this country gets to the ceiling of the Sistine Chapel,” by *The New York Times* this year. Notes from Rivera as well as his wife Frida Kahlo describe their time spent in Detroit between April 1932 and March 1933 while the murals were being painted. These papers were used in the creation of a 2015 DIA exhibition entitled *Diego Rivera and Frida Kahlo in Detroit*. The show brought 179,051 people to the museum. It relied extensively on archival records for its interpretive content and catalogue.

These and other materials held in the Archives are used by historians (including art historians), curators, educators, art critics, writers, filmmakers, students, scholars, sociologists, journalists, lawyers, colleagues from other museums, art gallery owners, and artists. They can be studied across several disciplines and among many fields of research in the humanities. Areas of interest include:

- the history of art connoisseurship;
- art dealers (European and American);
- 19th-21st century artists;
- American museums;
- art conservation and curation;
- museum governance and patronage;
- the role of education in an art museum setting;
- provenance, including Nazi era repatriation and ethical excavation of ancient sites;
- performing arts (puppetry, film, theater, dance, music);
- women as art scholars and philanthropists;
- genealogy (especially Detroit families and their patronage); and
- museum architecture and building preservation.

Documents within the archives also detail pivotal moments in the City of Detroit's history. Most recently, they described the DIA's role in the resolution of the City of Detroit's 2013 bankruptcy. It was the largest municipal bankruptcy filing in U.S. history both by debt, estimated at \$18 billion, and by population, over 700,000 residents. At the time, the DIA was owned by the City of Detroit. It was also the city's most valuable asset. Following the bankruptcy filing, creditors asked for the sale of DIA art. News agencies predicted the museum would close.

During bankruptcy proceedings, the DIA's archival records helped save the museum. During the trial, over 180,000 DIA records were digitized for court proceedings. The documents showed that most of the museum's most important works came from non-City of Detroit support. They were used extensively during the approval of a financial agreement that would come to be known as the "Grand Bargain." The plan called for the DIA and its partners (the State of Michigan and both local and national foundations) to pay \$816 million (\$100 million raised by the DIA) over twenty years to:

- allow Detroit to emerge from bankruptcy,
- shore-up Detroit worker pensions, and
- transfer ownership of the museum's art collection and building to the DIA.

In November 2014, the "Grand Bargain" was approved. In January 2015, the museum finished raising its \$100 million Grand Bargain commitment. The campaign was the most significant single year of fundraising in the museum's history.

Unfortunately, like most of the DIA's archival records, very few of the bankruptcy documents had previously been appraised¹, accessioned or processed. All such activities stopped thirty years ago, following severe museum-wide budget cuts and the dissolution of the DIA's archival team. Therefore thirty years of records, including artist correspondence, directors and curators' papers, and acquisition documents, have not received archival treatment. Many of the museum's earlier documents, dating back to the late 19th century, have not been processed either. The DIA has 11,000 linear feet of archival holdings. Roughly 8,000 linear feet of documents have not been processed. An unknown amount of material still requires transfer to the archives.

Now, following Detroit's bankruptcy and its resolution, the museum has better financial stability than at any other time in its modern history. This August, the DIA will enter year three of a ten year, voter approved millage through which the museum receives 70 percent of its operating budget (the first two millage years were overshadowed by bankruptcy proceedings). With financial stability and a bankruptcy behind it, the DIA has resumed its commitment to its archival activities. This summer the DIA will hire a permanent part-time archivist to assist its full time librarian. This employee will spend their first year assisting the DIA's Director of RL&A in finalizing an updated museum records retention policy and schedule. He/she will then begin eliminating collections ready for disposition (primarily financial records).

The DIA proposes a NEH Humanities Collection & Reference Resources foundation project (beginning in May 2016) to establish intellectual control of its archives. This will be accomplished via a holdings survey and assessment of the humanities value of unprocessed archival documents held at the DIA. The work will: 1) capture the current scope of materials housed in the Archives, 2) analyze and evaluate the humanities content of the Archives, 3) improve control over the collection, 4) assess unprocessed materials in the Archives against updated records retention schedules, 5) identify preservation issues, and 6) recommend next steps towards improving access to the archives and stewardship of these important documents.

¹ Throughout this narrative, the word "appraise" is used in the archival sense as a process usually conducted by a member of the record-holding institution (often a professional archivist) in which a body of records are examined to determine their value.

Documents to be surveyed directly link to the museum's artworks. Examples include the notes of William Valentiner from a week in June 1927 in which he found and purchased Rembrandt's *The Visitation* (1640) and Gustave Courbet's *Bather Sleeping by a Brook* (1845). Three years later, Valentiner found Pieter Breughel's *The Wedding Dance* (1559) at a home in England, bought the painting, and brought it back to Detroit. The original cable, between Valentiner and the DIA's Board of Directors on June 23, 1930 reads:

"SULLEY HAS EXTRAORDINARY PAINTING BY PETER BREUGHEL ELDER... GREATEST AND RAREST SIXTEENTH CENTURY MASTER... FORTY SEVEN BY SIXTY TWO INCHES... REPRESENTING PEASANT DANCE ABOUT FIFTY FIGURES... OF SAME SIZE AND IMPORTANCE AS GREAT VIENNA PAINTINGS... FOUND IN ENGLISH MANOR HOUSE ONE WEEK AGO... NEVER PUBLISHED... PRICED EXTREMELY REASONABLE... EIGHT THOUSAND POUNDS."

Valentiner (DIA Director 1924-1945) was an internationally renowned art historian whose work set the foundation for the DIA's present art collection. He was the curator of the Department of Decorative Arts at the Metropolitan Museum of New York prior to joining the DIA. After his retirement from the DIA, he was instrumental in the development of the Los Angeles County Museum of Art and the J. Paul Getty Museum. Other important individuals in the DIA's history whose papers reside in the archives include:

- Charles Moore (DIA Director 1914-1917) – a former U.S. Senator, Chairman of U.S. Commission of Fine Arts and chief of the Manuscripts Division of the Library of Congress. He was also an influential city planner in Washington D.C. during the construction of the National Mall.
- Clyde Burroughs (DIA Director 1917-1924) – an early editor of the *DIA Bulletin* (beginning 1904) who was deeply involved in early 20th century Detroit and DIA politics. The Burroughs' collection describes important early DIA exhibitions such as the *Annual Exhibition of American Art* that helped the DIA acquire American paintings such as John Sloan's *McSorley's Bar*.
- Edgar P. Richardson (DIA Director 1945-1962) – an expert in American art who was one of the co-founders of the Archives of American Art, which had its beginnings at the DIA and is now part of The Smithsonian Institution.

Original letters and notes (both handwritten and typed) from notable artists elucidate the themes in artworks at the DIA. These include documents written by Georgia O'Keeffe, Diego Rivera, Frida Kahlo, John Singer Sargent, Ellsworth Kelly, James McNeill Whistler, Frederic Edwin Church and Thomas Cole. Unique items include a series of handwritten poems by Cole, including, "Lines written after a walk on a beautiful morning in November 1833." The poem captures an artist at the height of his powers in the year he began his five-part series of paintings about America, *The Course of Empire*. Correspondence from 1836 between Cole and his only pupil another Hudson River School artist, Frederic Edwin Church, details the two artists' thoughts prior to their painting two artworks owned by the DIA, Cole's *American Lake Scene* and Church's *Cotopaxi*.

The DIA Archives also illuminate historic shifts in museum practice. For example, the DIA transitioned from an institution that relied mainly on art history in its presentation of art to a visitor-centered museum in 2007. The DIA was the first major U.S. art museum to do so on collection-wide scale. The shift relied on a multidisciplinary approach, which included extensive audience feedback and educator input. This resulted in a departure from traditional approaches to art gallery organization, which relied heavily on "isms"—such as modernism, cubism and expressionism—to categorize and present collections. The new museum focused on presenting art in an understandable way, for diverse people from all backgrounds. The approach was successful. *The Wall Street Journal* soon hailed the DIA as "America's most visitor-friendly art museum." This year they upped their praise and called the DIA, "**the world's most visitor-friendly art museum.**" The records, scholarship, and evaluation data that allowed these tectonic shifts in museum practice are found in the DIA Archives.

The DIA also contains several important collections related to the performing arts that contain notable archival records. All will be assessed as part of the proposed NEH-funded holdings survey. The three largest collections are *The Paul McPharlin Puppetry Collection*, the *Bill Kennedy Collection*, and the *Jazz at the Institute* audio recording series. The *McPharlin Collection* is the most important collection of American Theatrical puppetry in a North American museum. McPharlin published the definitive history of American Puppet Theater and documented his research with examples of complete puppet casts and a catalog of rare books, photos and ephemera. While the DIA has catalogued the book collection, the photos and other related items have yet to be processed, and, in some cases, stored in proper archival materials. Famed puppets within the collection and described within the ephemera include the original *Kermit the Frog* and the original *Howdy Doody*.

The *Bill Kennedy Collection* contains more than 10,000 photographs that span the history of American film, theater and early television industry from the silent era to the 1970s. Kennedy (1908 -1997) was an American actor, voice artist (known for narrating the television series *Adventures of Superman*) and host of the long-running Detroit television show, *Bill Kennedy at the Movies*. His association with industry actors, directors and producers gave him access to rare production photographs and portraits, many signed by notables such as Orson Welles and Greta Garbo. *Jazz at the Institute* was a live concert series held at the DIA from the early 1970s until 1990. It presented jazz legends in the DIA's historic Kresge Court. Genre giants such as Roland Hanna and Marian McPartland, as well as up and coming artists like Regina Carter, performed and were recorded with what was then state of the art reel-to-reel equipment.

Background of the Institution and Collections Descriptions

The DIA is recognized as one of the world's finest art museums. Founded in 1885, it contains more than 65,000 works of art, exhibited in more than 130 galleries across more than 158,000 square feet of exhibition space. The art collection is considered among the top six of its kind in United States. Works are organized into eight curatorial areas: Art of Africa, Oceania, and the Indigenous Americas; American Art; The Arts of Asia and the Islamic World; European Art; Film and Video Arts; Prints, Drawings, and Photographs; Contemporary Art; and African American Art. Facilities include a 1,150-seat auditorium and 380-seat lecture hall. Over 677,000 visitors came to the DIA last year. At the same time, the museum was listed as the number one place to visit in Detroit by *U.S. Travel*.

The DIA's Research Library, founded in 1905, is critical to the museum's scholarly activities. It is one of America's oldest and largest art and art-history museum libraries. The library contains a scholarly collection of 191,000 volumes. In 1979, the DIA founded a Museum Archives & Records Center, which became part of the DIA Research Library in 2002. Together they are now called The DIA Research Library & Archives (RL&A). Today, RL&A preserves and provides access to museum records of enduring research and historic value. The collecting scope of RL&A mirrors the breadth of DIA art acquisitions.

The DIA's archival collection contains a wide variety of materials related to the events and activities of the museum from 1883 to the present. These materials include: correspondence, news releases, exhibition related catalogues and ephemera, photographs, film, video, audio recordings, architectural drawings, newspaper clippings and scrapbooks. Over 8,000 linear feet of archival material currently await processing, with an unknown quantity of material still awaiting transfer to the archives prior to its processing. These include the papers of recently retired museum Director Graham W.J. Beal, whose leadership over the past 13 years, was credited with the success of the DIA's 2007 renovation and reinstallation, as well as the Grand Bargain, which resolved Detroit's bankruptcy.

The largest part of the collection exists as paper correspondence (letters, memoranda telegrams, faxes, notes, etc.). These documents are in mostly standard formats, either letter or legal sized. Documents that vary in size include notes, cards, telegrams, programs, pamphlets and invitations. Materials are mainly

typewritten, with some handwritten items. Some items are a combination of type and handwritten annotations and drawings. Correspondence is mostly written in English with some in German and French.

Photographs within the archives are mostly 8x10 black and white gelatin silver prints, with a lesser amount of black and white negatives (35mm, 4x5 sheet film) and color slides. Museum staff photographers took most photos, which remain in relatively good physical condition. The photos, negatives and slides are presently housed in metal file cabinets in acid free folders. The film and video collection consists of a variety of current and obsolete formats: 8mm, 16mm, 35mm, VHS, Betamax, and DVD. Film and video mainly includes moving images relating to exhibitions or lectures.

Current Use of DIA Archival Collection

The DIA Research Library & Archives (RL&A) is open to the public by appointment Monday through Friday, 9-5pm. It is used by both museum staff and external researchers. Internal users include curators, conservators, educators, docents, and exhibition assistants. External users include historians (including art historians), art critics, writers, filmmakers, students, scholars, sociologists, journalists, lawyers, colleagues from other museums, art gallery owners, and artists. Currently, access to archival collections is only available in person. Intellectual access is available via paper finding aids for processed collections. The finding aids for ten collections can be found online as MARC-based DACS records in our local integrated library system (Horizon) and in OCLC's WorldCat, which links finding aids to simple pdfs on the DIA website.

While it is very rare that the DIA library gets asked the same question twice, the top three most popular topics of inquiry are: Diego Rivera, the exhibition *For Modern Living* (1949)², and the exhibition *Dragged Mass* (1971).³

RL&A presently assists DIA staff and other researchers with over 1,300 requests via phone and email per year. At present, limited DIA library staffing can only provide archival assistance for scholarly requests. National and international scholars who have used the Archives in the past year include:

- Selina Hastings, daughter of Lord Hastings, assistant to Diego Rivera during the time he painted the *Detroit Industry* murals. Her research resulted in the book: *The Red Earl: The Extraordinary Life of the 16th Earl of Huntingdon* (London: Bloomsbury, 2014)
- Michael Hedger, Director, Manly Art Gallery and Museum, New South Wales and PhD candidate at the University of New South Wales in Sydney, Australia. He used the archives to complete his PhD dissertation "Larger Than Life: Scale and The Imaginary in The Works of Land Artists Michael Heizer, Walter De Maria and Dennis Oppenheim."
- Donald E. Simpson, PhD candidate at the University of Pittsburgh. He completed and successfully defended his dissertation "Civic center and cultural center: the grouping of public buildings in Pittsburgh, Cleveland, and Detroit and the emergence of the City Monumental in the modern metropolis."

The DIA's annual publication, *Bulletin of the Detroit Institute of Arts*, draws heavily from the Archives. It has been in print since 1919 and is devoted to new research on works of art in the museum's permanent collection. Per the DIA's most recent American Alliance of Museums accreditation report (2012), "The museum's publications are of the highest quality while being readily accessible to scholars and laypeople alike. The *Bulletin* is particularly praiseworthy." Research for the *Bulletin* is conducted with materials and research support from RL&A. Outside authors who have used the archives include the Executive Director of the College Art Association, Linda Downs. She relied extensively on archival materials at the

² A landmark exhibition of midcentury modern decorative arts, curated by architect Alexander Girard that highlighted designers like Eliel and Eero Saarinen, Florence Knoll and Herman Miller.

³ One of Michael Heizer's earliest exhibitions of land art, at which he dragged a 35,000-ton piece of granite over the north lawn of the DIA.

DIA when writing *Diego Rivera, The Detroit Industry Murals*, the definitive history of the frescoes, published by The Detroit Institute of Arts Founders Society, 1999. Exhibition catalogues that have drawn source material from the DIA archives, include: *Life's Pleasures: the Ashcan Artists' Brush with Leisure, 1895-1925* (2007); *Through African Eyes: the European in African Art, 1500 – present* (2010); *Rembrandt and the Face of Jesus* (2011); *Shirin Neshat* (2013); and *Diego Rivera and Frida Kahlo in Detroit* (2015).

History, Scope and Duration (of Archival Project)

The DIA did not take part in any formal archival activities in its first 69 years. Edgar Richardson, DIA Director 1945-1962, and Detroit businessperson, Lawrence Fleishman, first proposed building an archive at the DIA in the early 1950s. The two men saw a need for primary source materials in the study of American art. Lack of primary materials for American Art study caused the field to lag behind European art scholarship. Established in 1954, the Archives of American Art (AAA) grew out of Richardson's and Fleishman's desire to keep up with continental art scholarship.

A small army of librarians and information professionals was ultimately responsible for building the AAA from the ground up. Papers previously held at the DIA were combined with materials collected at libraries and archives across America. The AAA quickly became a destination for scholars interested in American art. The archives remained in Detroit until the early 1970s when the museum was financially unable to fund a national archive. Museum leaders worked with the Smithsonian to move the AAA to Washington, where it still thrives today. After the AAA left Detroit, museum leaders decided to create a DIA Archive & Records Center that focused on only the DIA's archives. The National Historical Publications and Records Commission awarded a grant that allowed for the hire of two full-time archivists. With the additional help of assistants and students, this team built the foundation of the museum's current archives. During their tenure, the archivists created policies and procedures for the archives. They also processed the letters of several historically important museum figures, mainly directors and curators, from the DIA's earliest days. These collections had previously been stored, unsorted and untouched, for almost 100 years with no archival treatment.

The museum was able to support the Archive & Records Center until the early 1990s, when the DIA experienced a financial crisis that led to severe staff cuts, including the release of all DIA archivists. The only Archive staff member retained was a part-time employee who split her time as both a part-time archives assistant and part-time bookkeeper in the DIA's Accounting Department. While the part-time archivist assisted with archival requests and accepted transfers to the Archives, none of the transferred collections were formally processed for researcher access. In 2002, the DIA's Research Library absorbed the Archives and Record Center; a year later, the DIA's archival assistant retired.

In 2003, RL&A staff was reduced from three full-time librarians and a part-time archive assistant to a single full-time librarian who manages all library and archival operations. RL&A was closed to the public from 2003 to mid-2007 while the DIA completed museum-wide renovations and a reinstallation of its art collection. It reopened in 2007. The DIA's lone librarian was tasked with restoring access to the research library and previously processed DIA archives. In 2009, RL&A Director, Maria Ketcham completed this project with extensive assistance from an internship program through Wayne State University's School of Library & Information Science. The Institute of Museum and Library Services provided two years of grant funding to support this joint internship program.

From the time the DIA lost its full time archivists (1991) until today, no new archival records have been appraised or processed. As of July 2015, the RL&A is in the process of hiring a permanent part-time archivist. Their first assignment will be to help the DIA's librarian finalize a records retention policy and schedule, which will be disseminated to DIA staff by early 2016. Ms. Ketcham began this work with our legal team in 2015. The DIA hopes to begin an NEH-funded collections survey in May 2016.

Methodology and Standards

The Project Team consists of Project Director and RL&A Director, Maria Ketcham, a TBD DIA Archivist (to be hired by September 2015— prior to the proposed project), and a TBD Project Archivist (to be hired with NEH funds). They will work with an Advisory Team that includes curators, academics, film makers, conservators, and experts in the field of performing arts. The project will systematically assess the current holdings of the DIA archives and provide crucial data needed to evaluate and analyze all future archival undertakings.

The Project Archivist will conduct a comprehensive holdings survey in collaboration with the Project Director and DIA Archivist. This work will shape strategies for future appraisal, processing and collection management. It will also help the DIA more fully understand the prevalence of unmet preservation challenges. The survey will capture collection's level information regarding creators, subject matter, formats, volume, and condition. Earlier this year the DIA conducted its first holdings survey in its known history.

Before the proposed NEH project begins, the Project Director and DIA Archivist will have completed and implemented a museum records retention policy and schedules (as well as an archival policies update). This work began one year ago. It was a collaborative effort, which required interviews (conducted by the Project Director) with each DIA department. The DIA's legal team provided close consultation throughout the project. The RL&A director predicts that a large percentage of RL&A materials will be eliminated upon implementing the forthcoming policies. Many DIA records are financial in nature and are long past their disposition period. Since the creation of the DIA archives, only general guidelines existed regarding transfer and appraisal of documents. With the new departmental-specific records schedules in place, the Project Director will be able to better educate staff regarding records management, especially management of records destined for the Archives. The Project Director will also be able to better outline appropriate disposition timeframes. This will considerably reduce the amount of materials coming to the archives with little or no research value. It will also allow the DIA to focus more on managing the archival materials that serve the scholarly community.

Dr. Salvador Salort-Pons (DIA), Jeffrey Abt (Wayne State University) and Grace Raso (Detroit Public Television) will identify key items in the collection based on their research value. A rubric (see Appendix 1) will be employed by Dr. Salort-Pons, Abt, and Raso to ensure consistency of the assessment, and to inform the preparation of a comprehensive report. This team will be assisted by the DIA's Larry Baranski and Rudy Lauerman when assessing selected performing arts collections. Descriptions of sub-collections and identification of key items, their relative rareness, and their potential utility and value to humanities research will form the core of this report. The DIA's Director and Conservator of Special Projects and former Chief Conservation, Barbara Heller will address preservation issues as they arise.

Dr. Salort-Pons was selected as a project participant due to his art history background, and extensive experience as a curator, scholar and user of the archives. Salort-Pons is the DIA's Executive Director of Collection Strategies & Information division, European Department Head and Curator of European Art. He uses the DIA archives as he updates the DIA's collection catalogue of 14th, 15th, and 16th century Italian paintings and other DIA collections. His familiarity with the overall content of the archives informs his knowledge of interpretive themes and humanities research topics that the collection will support. He also oversees a five-year museum wide Collections Access Project, the initial stages supported by a Henry Luce Foundation grant, to make the DIA's American art collection more available online.

Mr. Jeffrey Abt was chosen for this project because of his extensive knowledge and use of the DIA Archives on projects that include a detailed history of the DIA, *A Museum on The Verge: A Socioeconomic History of the Detroit Institute of Arts: 1882 to 2000*. He is currently in the process of finishing a book that continues from where his last book stopped.

Ms. Grace Raso was chosen for this project because of her experience using archival documents for nationally broadcasted documentaries, including the Emmy-nominated *The Revolutionary Optimists* and several Public Broadcasting Network features. She has previously conducted extensive archival research for documentary film production at the National Archives and Records Administration, Library of Congress, and CBS News archives.

Larry Baranski and Rudy Lauerman of the DIA's Public Programming Department will complete surveys relating to the *Paul McPharlin Puppetry Collection*, *Bill Kennedy Film Collection*, and audio recordings from concerts held at the DIA. They were selected to assist with these collection surveys due to their combined 59 years of professional experience in the performing arts at the DIA.

Barbara Heller was selected to oversee preservation issues due to her 40 plus years of relevant experience. Barbara is the DIA's Director and Conservator of Special Projects. She was formerly the DIA's Chief Conservator. A leader in the conservation community, her work has been published in many scholarly journals including *The Journal of the American Institute for Conservation*.

After the foundation project is complete, the Project Director will produce a white paper. The report will:

- provide detailed descriptions of thematic areas within the archive, including their relevance to the humanities;
- incorporate newly revised DIA records management and updated archival policies and procedures for a variety of formats;
- develop a detailed implementation schedule for accessioning, processing, organizing and providing access to archival collections;
- Develop workflows and techniques for eliminating backlogs and preventing future backlogs; and
- Promote the impact and value of DIA archival collection as it relates to research in a variety of disciplines.

Sustainability of project outcomes

The proposed holdings survey is the key to understanding the unknowns of the materials currently held in RL&A. The museum is fully committed to making its archives more available and better organized for researchers. The Project Director and DIA Archivist will be able to better strategize future use of the DIA archives upon discovering its full contents. An immediate outcome of the proposed holdings survey will be improved access to collection, in particular, those that have been "hidden." The collections-based reports will subsequently be translated into finding aids and catalogue records.

The Project Team will synthesize the results of the holdings survey with the input of the Advisory Team. The combined intelligence will be used to strengthen physical and intellectual control over the collection. The holdings survey will provide the evidence needed to move forward with making sound decisions for improvements in description and access, prioritizing preservation needs, informing workflows, and identifying any other issues we may not have been aware of, and plan for future projects (such as a future digitizing project).

Dissemination

Information gathered during the collection assessment will be used as the basis for collections-level access. It will exist in the form of catalogue records written in MARC using the DACS standard. This data will be the basis for traditional archival finding aids to be included in the RL&A library catalogue as well as in OCLC's WorldCat/WorldShare. Dissemination methods will include: white papers (promoted on the DIA website), case studies on the Society of American Archivists website, peer-reviewed article(s) in journals of library/archives/information management, and through conference presentations related to library, archival, and humanities fields. The DIA will also share its experiences, key findings, and project outcomes on the DIA's website, dia.org, as well as through news releases and newsletters.

Work Plan

Pre-grant period: Project Director Maria Ketcham will complete a records retention policy and schedule, hire a part-time DIA Archivist, begin applying records retention schedules to financial records held in the archives, and begin the search for a to-be-named Project Archivist.

May 2016-April 2017: The Project Team will begin a collection level holdings survey. This survey will serve as a baseline for advisory team collaborations. The Project Archivist will administer and compile the survey, with a final summary to include recommendations for organizational schema of the physical archives space based on analysis of the archival collection. He/she will determine, which collections or items within collections will remain together, and, which will be separated to create artificial collections (news releases, exhibition materials, meeting minutes, calendars of events, etc.). The DIA's Archivist will use the results of the holdings survey to create finding aids for the collection. Evaluation of humanities content of the collection will be completed by the Advisory Team using a rubric (Appendix 1). Barbara Heller will provide advice on preservation issues as appropriate.

May 2016-April 2017: The Project Team will consult with Advisory Team members to discuss preliminary findings of the holdings survey and issues especially relating to their areas of expertise. Communication with the Project Archivist and Advisory Team will take the form of meetings (in-person or online). The Project Director will create a team site in Microsoft SharePoint to store survey results. It will take advantage of social media-type tools within the system, like newsfeeds and wiki pages for updates. SharePoint will serve as a collaborative tool and knowledge base for this project so that everyone on the team will have access to project information at any given time.

May-June 2017: The Project Director will begin drafting a white paper detailing the procedures and findings of all planning activities. The final document will address the evaluation and assessment of the collection based on the holdings survey, financial requirements needed to sustain project, and staffing requirements.

July 2017: The Project Director will produce final white paper for dissemination and begin plans for implementing an archival materials digitization program at the DIA.

Staff & Consultants (See Appendix 3 for all resumes)

DIA Staff: Maria Ketcham, Director, DIA Research Library & Archives, has been on staff since 2005. Ms. Ketcham has been member of the *Academy of Certified Archivists* for over a decade. She was formerly a project archivist for the Ford Motor Company, where she evaluated and processed special archival collections for appraisal and improved arrangements and descriptions for access. Since 2010, Maria has served as Vice Chair of the Detroit Area Library Network Board of Directors. She has lectured at the Michigan Archival Association Conference, the Network Detroit Digital Humanities Theory and Practice Conference, and American Association for University Women. Ms. Ketcham will spend 15% of her time (39 days) devoted to proposed NEH activities.

A to-be-named Project Archivist (see Appendix 2 for job description) with extensive archival preservation and conservation experience will help Ms. Ketcham identify a sample from a variety of DIA held media materials to digitize. He/she will assist Ms. Ketcham and archival consultants with evaluating workflows for scanning, creating metadata, creating content standards, and testing software programs that will determine the best and most sustainable DIA archival solution. The Project Archivist will work 28 hours per week for 52 weeks solely devoted to NEH activities.

A to-be-named DIA Archivist with extensive archival preservation and conservation experience will work closely with the Project Archivist. After the Project Archivist captures information about archival collections, the DIA Archivist will work with subject specialists in the appraisal of records to determine their research and historic value. He/she will then begin to create workflows and processing priorities

based on the holdings survey. He/she will also create collection-level finding aids for sharing archival information. The DIA will spend 30% of her time (55 days) devoted to proposed NEH activities.

Dr. Salvador Salort-Pons is the DIA Executive Director of Collection Strategies & Information, Head of the European Art Department and The Elizabeth and Allan Shelden Curator of European Painting. Dr. Salort-Pons holds a doctorate in art history from the University of Bologna, Italy. He has curated multiple exhibitions on Italian Art. He is author of *Velázquez en Italia*, Madrid 2002, and *Velázquez*, Madrid 2008, in addition to numerous scientific articles published in exhibition catalogues and art journals. Salvador will spend five days on assessments. He will attend focus group meetings, lead the Advisory Team with the Project Director and Project Archivist and assist with a final white paper. Dr. Salort-Pons will devote 5% of his time (13 days) to NEH activities.

Barbara Heller is the DIA Director and Conservator of special projects. She has worked at the museum since 1976. Hired as paintings conservator, she was promoted to chief conservator in 1985 and assumed her current position in 2009. Barbara was formerly paintings conservator at the Palazzo Pitti, Florence, where she completed her training. She was an intern for the Committee to Rescue Italian Art, working on flood-damaged books at Certosa di Galuzzo, and for Wayne State University, at an Etruscan Foundation dig near Siena, Italy. She holds a certificate from Getty Leadership Institute and credentials from Olivet College, University of Michigan, Wayne State University, and Harvard University. Ms. Heller will devote 5% of his time (13 days) to NEH activities.

Lawrence Baranski is the DIA Director of Public Programs and Curator of the Paul McPharlin Puppetry Collection and Performing Arts Collection. He has been the Associate Program Curator for the Detroit Film Theatre since 1984, and a staff member of the DIA Performing Arts Department from 1974 until 1991. Mr. Baranski has assisted RL&A with inquiries related to art of puppetry for the University of Connecticut Ballard Institute and Museum of Puppetry, and the Bibliothèque nationale de France. Mr. Baranski will assist the Advisory Team with onsite assessments of the *Paul McPharlin Puppetry Collection*, *Bill Kennedy American Film Collection* and tapes from the *Jazz at the Institute* live concert series and will devote 5% of his time (13 days) to proposed NEH activities.

Rudy Lauerman is the DIA Manager of Public Programs. On staff since 1985, Lauerman curates the DIA's *Friday Night Live!* concert series, which has featured music from artists, like the White Stripes and Patti Smith. Rudy has also recorded albums by jazz greats such as Wendell Harrison and Roy Brooks and produced performance arts pieces for artists like John Cage. Mr. Lauerman will assist the evaluation team's onsite assessment of the *Jazz at the Institute* live concert series and will devote 5% of his time (13 days) to NEH activities.

Consultants

Mr. Jeffrey Abt is a Wayne State University Professor of Art and Art History. He holds a Masters of Fine Arts from Drake University. Abt's writings include *A Museum on the Verge: A Socioeconomic History of the Detroit Institute of Arts, 1882-2000*, published by Wayne State University Press in 2001 and the essay, "The Origins of the Public Museum" in *A Companion to Museum Studies*, issued by Blackwell Publishing in 2006. Abt's most recent book, *American Egyptologist: The Life of James Henry Breasted and the Creation of His Oriental Institute*, was published in 2012 by the University of Chicago Press. Mr. Abt will assist Dr. Salort Pons with his onsite assessment, attend focus group meetings and assist with a final white paper. Mr. Abt will spend 10 days (80 hours) devoted to NEH activities.

Ms. Grace Raso is a documentary filmmaker working in San Francisco, New York, and Detroit. She began her career as an associate producer with Lucasfilm, Ltd. on the Young Indiana Jones Documentary Series producing eight historical documentaries on subjects from Ataturk to John Ford. She's worked on broadcast documentaries for PBS FRONTLINE, National Geographic, and independent features such as *The Genius of Marian*. Ms. Raso will spend 10 days (80 hours) devoted to NEH activities.

July 21, 2015

Detroit Institute of Arts
NEH HCRR Grant

History of Grants

This is a new project, which has not received previous federal or non-federal support.

List of Project Participants, Consultants, and Advisors

Project Participants:

Abt, Jeffrey, Wayne State University
Baranski, Lawrence, Detroit Institute of Arts
Heller, Barbara, Detroit Institute of Arts
Ketcham, Maria, Detroit Institute of Arts
Lauerman, Rudy, Detroit Institute of Arts
Raso, Grace, Detroit Public Television
Salort-Pons, Salvador, Detroit Institute of Arts



NATIONAL ENDOWMENT FOR THE

Humanities

Budget Form

OMB No 3136-0134

Expires 7/31/2015

Applicant Institution: *Detroit Institute of Arts*Project Director: *Maria Ketcham*Project Grant Period: *05/01/2016 through 07/31/2017*[click for Budget Instructions](#)

	Computational Details/Notes	(notes)	Year 1	(notes)	Year 2	(notes)	Year 3	Project Total
			05/01/2016 - 04/30/2017		05/01/2017 - 07/31/2017			
						*estimates 3 percent salary increase in year 2		
1. Salaries & Wages								
Project Director (Maria Ketcham)	Annual Salary: \$	15%	\$	15%	\$	3 months - year 2		\$
Project Archivist	Annual Salary: \$ Part-Time (28 hours per week)	100%	\$	100%	\$	2 months - year 2		\$
DIA Permanent Archivist	Annual Salary: \$ Part-Time (28 hours per week)	30%	\$	30%	\$	2 months - year 2		\$
Larry Baranski	Annual Salary: \$	5%	\$	5%	\$	2 months - year 2		\$
Rudy Lauerman	Annual Salary: \$	5%	\$	5%	\$	2 months - year 2		\$
Dr. Salvador Salort-Pons	Annual Salary: \$	5%	\$	5%	\$	2 months - year 2		\$
Barbara Heller	Annual Salary: \$	5%	\$	5%	\$	2 months - year 2		\$
2. Fringe Benefits								
Project Director (Maria Ketcham)	35.30%		\$		\$			\$
Project Archivist	15.00%		\$		\$			\$
DIA Permanent Archivist	15.00%		\$		\$			\$
Larry Baranski	35.30%		\$		\$			\$
Rudy Lauerman	35.30%		\$		\$			\$
Dr. Salvador Salort-Pons	35.30%		\$		\$			\$
Barbara Heller	35.30%		\$		\$			\$
3. Consultant Fees								
Jeffrey Abt (Humanities Evaluation) (80 hrs. gratis)								\$0
Grace Rason (Humanities Evaluation) (80 hrs. gratis)								
4. Travel			\$0		\$0			\$0

								\$0
5. Supplies & Materials								
			\$0		\$0			\$0
6. Services								
								\$0
7. Other Costs								
								\$0
8. Total Direct Costs	Per Year		\$78,795		\$14,509		\$0	\$93,304
9. Total Indirect Costs								
	Per Year		\$0		\$0		\$0	\$0
10. Total Project Costs	(Direct and Indirect costs for entire project)							\$93,304
11. Project Funding	a. Requested from NEH							
							Outright:	\$40,000
							Federal Matching Funds:	\$0
							TOTAL REQUESTED FROM NEH:	\$40,000
							b. Cost Sharing	
							Applicant's Contributions:	\$53,304
							Third-Party Contributions:	\$0
							Project Income:	\$0
							Other Federal Agencies:	\$0
							TOTAL COST SHARING:	\$53,304
12. Total Project Funding								\$93,304

Total Project Costs must be equal to Total Project Funding ----> (\$93,304 = \$93,304
 Third-Party Contributions must be
 greater than or equal to Requested Federal Matching Funds ----> (\$0 ≥ \$0

Physical appraisal evaluation worksheet *(To be filled out by archivist)*

Collection name :

Location :

☐ Unprocessed ☐ Processed Accession # :

Arrangement of materials:

- ☐ Alphabetic ☐ Chronological
☐ Numeric ☐ By subject
☐ Not arranged ☐ Other

Volume/Extent :

Number of items :

Date range :

Bulk date range :

Language :

Description of records :

Condition of material :

Additional comments :

Type of material :

- | | |
|--|--|
| <input type="checkbox"/> Audio recordings | <input type="checkbox"/> Movie film |
| <input type="checkbox"/> Correspondence | <input type="checkbox"/> Newspapers |
| <input type="checkbox"/> Computer disks | <input type="checkbox"/> News Releases |
| Format _____ | <input type="checkbox"/> Photographs |
| <input type="checkbox"/> Diaries/Manuscripts | <input type="checkbox"/> Photocopies |
| <input type="checkbox"/> Financial Records | <input type="checkbox"/> Printed Materials |
| <input type="checkbox"/> Legal Documents | <input type="checkbox"/> Reports |
| <input type="checkbox"/> Maps/Charts | <input type="checkbox"/> Research |
| <input type="checkbox"/> Memorabilia | Materials |
| <input type="checkbox"/> Microfilm | <input type="checkbox"/> Scrapbooks |
| <input type="checkbox"/> Meeting Minutes | <input type="checkbox"/> Video |
| | Format _____ |
| | <input type="checkbox"/> Other |

Evaluator :

Evaluation date :

Appendix 2

The Detroit Institute of Arts is looking for an experienced Project Archivist to help in the planning of managing, preserving, and providing long-term access to electronic records housed in the museum archives. This is a one year grant-funded position, from May 2015 – April 2016, with a focus on investigating open source content management systems to provide online access to the museum's wealth of historic materials. The Project Archivist will work under the direction of the Head of the Research Library & Archives (Project Director).

JOB TITLE/DEPARTMENT

Project Archivist
Research Library & Archives

CLASSIFICATION/SALARY RANGE

Part-time (maximum of 28 hours/week),
Non-Exempt (Hourly)
\$20.00/hr.

QUALIFICATIONS

- Master's degree in Library & Information Science from an ALA accredited institution required
- Academy of Certified Archivists (ACA) Certification, and/or Graduate Certificate in Archival Administration desired
- Minimum two years of relevant archival experience
- Strong background in archives theory and best practices, including their application to born-digital or digitized content
- Experience in the application of preservation and conservation standards for analog and digital assets
- Familiarity with records management practices
- Familiarity with metadata and data structure standards relevant to the archival control of digital materials (e.g., EAD, Dublin Core, METS, MODS, PREMIS, XML/XSL)
- Ability to set priorities, manage work, and meet deadlines independently and collaboratively
- Strong analytical, communication, and writing skills
- Ability to lift up to 40 pounds
- Must be well-organized and self-directed

RESPONSIBILITIES

- Work closely with Project Director
- Conduct holdings survey of archival materials
- Assist in the preservation assessment of collections and selection of materials to prioritize for digitization
- Create summative and comprehensive reports
- Manage meetings with collaborators
- Oversee project staff, to include interns or practicum students

MARIA R. KETCHAM

Detroit Institute of Arts Director Research Library & Archives

EDUCATION

Master of Library and Information Science
Wayne State University, Detroit, Michigan

Bachelor of Fine Arts - Photography
Wayne State University, Detroit, Michigan

CERTIFICATIONS

Certified Archivist (ACA) 2001 – present

PROFESSIONAL EXPERIENCE

- 2005- Director Research Library & Archives,
 Detroit Institute of Arts
 Oversee all Research Library & Archives operations; determine goals, administrative allocation of resources; manage and mentor interns, practicum students and volunteers
- 09/04 – 6/05 Project Archivist
 Ford Motor Company Archives, Dearborn, MI
 Evaluated and processed special archival collections for appraisal, improved arrangements and descriptions for access, and conducted legal suspension reviews with Office of the General Counsel
- 04/03 – 12/03 Archivist
 Ford Motor Company Archives, Dearborn, MI
 Conducted research services to serve and support an internal clientele; acted as Research Coordinator on a rotating basis
- 05/01 – 03/03 Reference Librarian, Research Library & Archives,
 Detroit Institute of Arts
 Responsible for conducting research and reference services via phone, email, post, and in-person to the public and museum staff; managed Reading Room and circulation
- 07/99-05-01 Archivist
 Ford Motor Company Archives, Dearborn, MI
 Conducted research and reference services for internal and external clientele; processed various collections; digitized photographic collections; served on team projects: Holdings Survey, Audiovisual Assets Management, Web Development, Thesaurus Development, Disaster Planning, and Access Review and Transfer

LECTURES AND PUBLICATIONS

- June 2014 *New Digs : The Logistics of Additions and Relocations*, presentation for Michigan Archival Association Conference, Mackinac Island, MI

- Sept 2013 *Detroit Heritage Institutions in the Digital Age*, presentation for Network Detroit : Digital Humanities Theory & Practice Conference, Lawrence Technical University, Southfield, MI
- 2005 - present *DIA Research Library & Archives : A Brief Overview*, Wayne State University School of Library and Information Science, guest lecturer for various graduate courses
- 2008 - present *Researching Art : The Resources of The Detroit Institute of Arts Research Library & Archives*, Detroit Institute of Arts, presentation in support of docent enrichment
- 2009 *Rare books of the Research Library & Archives*, Detroit Institute of Arts, special Lecture for the American Association for University Women, May 2009
- June 2008 *Collaborations and Consortiums*, presentation for Michigan Archival Association Conference, Mackinac Island, MI
- June 2006 *Preserving Michigan's Heritage in the Arts and Culture*, presentation for Michigan Archival Association Conference, Frankenmuth, MI
- Oct 2005 *Researching Art : The Resources of The Detroit Institute of Arts Research Library & Archives*, presentation for Michigan Library Association Conference, Detroit, MI

PROFESSIONAL AND COMMUNITY ASSOCIATIONS

- 2013 - Member, Regional Digital Preservation Practitioners
- 2005- Detroit Area Library Network (DALNET)
- | | |
|--|----------------|
| <i>Chair-Executive Committee/Vice Chair-Board of Directors</i> | 2010 – present |
| <i>Member – Board of Directors</i> | 2005 – present |
| <i>Member – Project Managers</i> | 2005 – present |
| <i>Member – Systems Administration Taskforce</i> | 2014 |
| <i>Member – Public Interface and Reference Taskforce</i> | 2014 |
| <i>Member – Cataloguing and Database Standards Committee</i> | 2012 |
| <i>Member – HIP Upgrade Committee</i> | 2011 |
| <i>Secretary – for Board and Executive Committee</i> | 2007 – 2010 |
| <i>Member – Reciprocal Borrowing Taskforce</i> | 2006 |
- 2006-08 Collaborative Partner, IMLS grant
- Supervised and mentored 12 graduate students enrolled in Wayne State University's School of Library and Information Science for an IMLS grant geared towards educating and training find and performing arts librarians*
- 2005 Evaluator, Michigan Electronic Library (MeL)
- Evaluator of electronic databases for MeL to help inform their selections*
- 2004-10 Consultant, Masonic Temple Library and Archives, Detroit, MI
- Advise staff on best practices for their collection*
- 2001- Member
- Academy of Certified Archivists*
- Art Libraries Society of North America (ARLIS)*
- Michigan Archival Association*

AWARDS AND DISTINCTIONS

- 2011 Distinguished Alumni - Professional Service Award
- Wayne State University, School of Library and Information Science*
- 2011 DIA Arts Research Library & Archives ranked one of the best libraries in Detroit, <http://detroit.cbslocal.com/top-lists/best-libraries-in-detroit/>

EDUCATION

2006-2007 Cox School of Business, Southern Methodist University (Dallas, TX)
Professional MBA, Finance and Strategy, August 2007

2000-2002 Università degli Studi di Bologna (Bologna, Italy)
Ph.D., History of Art, European Research Doctorate, February 2002
Thesis: "Velázquez in Italy" (Published in Madrid, 2002)

1991-1993 Universidad Complutense (Madrid, Spain)
MA, History of Art, June 1993

1988-1991 Universidad Complutense (Madrid, Spain)
BA, Geography and History, June 1991

WORK EXPERIENCE

February 2008 to present, Detroit Institute of Arts (Detroit, MI)
I currently hold two positions:

Executive Director, Collection Strategies and Information

- Lead the Division and manage the operations of the following five departments: Collections Management, the Registrar's Office, Conservation, Library and Collections Publishing & Information

Head of the European Art Department and The Elizabeth and Allan Shelden Curator of European Painting

- Oversees all aspects of the European Art Department and Collection (1300-1950), one of the DIA's largest holdings. Responsibilities include but are not limited to researching holdings including Nazi-Era provenance, overseeing permanent installation, recommending new works for museum acquisition, curating special exhibitions, leading the DIA's European Paintings Council, and lecturing

September 2004 to January 2008, **Getty Fellow/Independent scholar** (Dallas, TX)
Research projects: *Gonzalo de Liaño, artistic agent of the King Philip II* (see grants and awards) and *Diego Velázquez (1599 – 1660)*

- Worked for Getty grant part time (Sept. 04 - June 06)/ full time (July 06 - Jan. 08).
Published research results in *The Burlington Magazine*

- Contracted in September 2006 by Ed. Arco/Libros, Spain to write a handbook on Diego Velázquez for university students (see publications)

September 2004 to June 2006, Meadows Museum at SMU (Dallas, TX)

Senior Curator

October 2003 to September 2004, Universidad Complutense (Madrid, Spain)

Full-Time Assistant Professor

September 2002 to October 2003, Medici Archive Project (Florence, Italy)

Research Fellow

January 2001 to July 2002, Fondazione Memmo, Palazzo Ruspoli (Rome, Italy)

Curator of exhibitions

AFFILIATIONS, GRANTS AND AWARDS

Since 2012, Conference Committee Member of the Association of Art Museum Curators

Since 2012, Board member at the Midwest Art History Society

Sept 2011, Max Planck Fellowship, Bibliotheca Hertziana (Rome, Italy)

Research grant devoted to study the DIA's Early Italian Painting Collection

Sept 2004 to Sept 2006 (ext. Jan. 2008) Getty Collab. Research Grant (L.A., CA)

Recipient of \$199,000 research grant

January 2000 to February 2002 Royal College of Spain (Bologna, Italy)

Elected Fellow (12 Fellows elected annually from a national search)

January 1998 to December 1999 Spanish Academy in Rome (Rome, Italy)

Elected Fellow

January 1993 to December 1997 Universidad Complutense (Madrid, Spain)

Pre-Doctorate Research Grant. Served as Teacher Assistant on a scholarship

PUBLICATIONS AND LECTURES

Books

- *Diego Velázquez (1599 – 1660)*, Ed.Arco/Libros, Spain, Madrid 2008 (332 pages and 186 color illustrations)
- *Velázquez en Italia*, Fundación de Apoyo para la Historia del Arte Hispánico, Madrid 2002 (300 pages and more than 250 color illustrations). Reviewed in the *Burlington Magazine* (2005, n.147 (1226), p.336)

Articles, lectures and contribution to exhibition catalogues (A complete list is available upon request)

LAWRENCE BARANSKI

Director of Public Programs

lbaranski@dia.org

EDUCATION

1983 BFA, printmaking & photography
Society of Arts & Crafts (Center for Creative Studies)

1998 BA, interdisciplinary studies
Wayne State University

PROFESSIONAL EXPERIENCE

2008-Present: Director of Public Programs, DIA
*Directs all phases of public programs, including film, music and children's theater.
Project director for the restoration of the DIA's historic 1100 seat theatre.*

2006-2008: Historic Restoration Project Manager, Detroit Institute of Arts Auditorium
Responsible for all phases of theater restoration research, fundraising, design and construction management of historic 1927 Auditorium (1200 seat), including lighting, sound and rigging stage renovation, fixed theater seating and paint and decorative plaster restoration.

1984-2006: Associate Curator: Detroit Film Theatre, Performing Arts and Paul McPharlin Puppetry Collections, DIA
Film programmer for theatrical exhibition series presenting first run foreign language and independent films, historic films and documentaries. Collection curator for performing arts poster and photographic holdings, and significant collection of American puppetry.

PUBLICATIONS

1999 *Hands, Strings & Shadows: A Modern Puppet History* (publication research)

LECTURES & SYMPOSIA (presented/organized):

1987 *Carl Theodore Dreyer*, symposium on the Danish film director
1995 *Things That Once Were Men*, symposium on the horror film genre
1988 *Before Hollywood*, silent film series
1993 *National Film Registry Tour*, Library of Congress series
1996 *The Michigan WPA and the Index of American Design*—Detroit Institute of Arts
1994 *Ralph Steiner and The City*—Detroit Institute of Arts
2000 *The Art of Pre-Cinematic Illusions*—Detroit Institute of Arts
2000 *The Proscenium Theater*—Detroit Institute of Arts
2000 *Punch's Progress: The Paul McPharlin Collection*—Kalamazoo Institute of Arts

BARBARA HELLER

Director and Conservator of Special Projects

bheller@dia.org

EDUCATION

- July 1989 Museum Management Institute, University of California at Berkeley. Certificate.
- 1981-1982 Wayne State University (WSU), Detroit, Michigan. Graduate Program in Art History.
- 1977-1980 Completed B.A. credits at WSU in Art History with the degree to be conferred by Olivet College.
- 1966 - 1968 Oliver College, Olivet, Michigan. Major in Art History and French, course work in Chemistry and Studio Art.

RELATED TRAINING (SELECTED)

- Sept. 1991 "Art in Transit," Tate Gallery, London, England. International Conference and Workshop on the packing and transportation of paintings.
- April 1990 The Getty Conservation Institute, Los Angeles, California. Course, "Preventive Conservation: Museum Collections and Their Environment." Certificate.
- August 1988 The Getty Conservation Institute, Los Angeles, California. Workshop, "New Methods in the Cleaning of Paintings," with Richard Wolbers. Certificate.
- June 1988 American Institute for Conservation Pre-Conference Seminar: Conservation Survey Workshop.
- March 1985 Harvard School of Public Health, Boston, Massachusetts. "Occupational and Environmental Radiation Protection." Certificate.
- Jan. 1980 University of Michigan Museum of Art, Ann Arbor, Michigan. Workshop, "Museum Marauders or Pest Control for Museums," with Thomas A. Parker.

PROFESSIONAL EXPERIENCE (SELECTED)

- March 2009- Detroit Institute of Arts (DIA) DIRECTOR AND CONSERVATOR OF SPECIAL PROJECTS, Exhibitions and
Present Strategies Collection department. *Responsible for managing collection storage upgrade projects, writing conservation grants and conservation assessments, triage of collection, assessing and developing DIA collection tours, couriering art, monitoring climate control systems, emergency response team, ADA 504 compliance, and liaison between Conservation and Curatorial departments.*
- July 1986- DIA, CHIEF CONSERVATOR, Conservation Department
March 2009 *Leader of the conservation research, scientific analysis, treatment and preventive conservation programs, and outreach activities; performed special projects; supervised between 14-20 staff members; managed grants, monitored budgets; published in professional journals; and participated in Management, Staff Master Planning, Construction Scheduling, Museum Building, and Reinstallation Steering Committees.*

- Feb. 1993-
August 1993 The Getty Conservation Institute, SENIOR RESEARCH FELLOW, Training Program
Responsible for the development and creation of teaching materials for their course "Preventative Conservation: Museum Collections and Their Environment".
- March 1985-
June 1986 DIA, ACTING HEAD CONSERVATOR. RADIATION SAFETY PROTECTION OFFICER
Responsible for the direction and supervision of the conservation department, established a museum-wide preventative conservation program.
- June 1982-
March 1983 Toledo Museum of Art, EXHIBITION CONSERVATOR
On contract through DIA to monitor paintings in the El Greco of Toledo exhibition at the Prado in Madrid, Spain, the National Gallery of Art, Toledo Museum of Art, and Dallas Museum of Fine Arts.
- Oct. 1976-
Feb. 1985 DIA, PAINTINGS CONSERVATOR, HEAD OF PAINTINGS LABORATORY
Responsible for the treatment of paintings on canvas and panel from DIA, various State of Michigan and Midwest collections.

LECTURES AND PUBLICATIONS (SELECTED)

- 2013 “Balancing the Preservation Needs of the Collections and the Integrity, Cost, and Energy Use of Buildings,” with Meg Loew Craft, Scott Easton, Wendy Heintz-Joehnk, Michael Henry, Matthew Siegal, and Curt Songer, AAM Annual Meeting & MuseumExpo™, 21 May, Baltimore, MD.
- 2012 “Changing Conservation Environment Guidelines and their Impact on Today’s Museums” with Kevin Shultis, Curt Songer, and Greg Wittkopp, AAM Annual Meeting & MuseumExpo™, 29 April-2 May, Minneapolis, MN.
- 2010 “Brief History of Detroit Institute of Arts Conservation Department 1927-2010” MRCG Annual meeting, 12-14 November, Louisville, KY. Documents submitted to University of Delaware Winterthur Museum archives.

PROFESSIONAL AND COMMUNITY ASSOCIATIONS (SELECTED)

- 1999- International Council of Museums
- 1992-98 Board of Directors, *American Association of Museums/International Council of Museums*
- 1988- Board of Directors, *Marshall Fredericks Sculpture Museum, Secretary, Chair Collections Committee*
- 1987- Founding Member, *Michigan Alliance for the Conservation of Cultural Heritage, V.P. 1989, 2000-2004, President 1990-92, created and maintains online Disaster and Conservation Resource Center*
- 1985-15 Member, *Heritage Preservation, Secretary 1996-1999, By-laws, Member-at-Large 2000-2004, Chair of Paintings, Prints and Drawings working group Heritage Health Index project 2003, Nominating 2004-08*
- 1980- Midwest Regional Conservation Guild, *Secretary 1980-82, President 1985-87, 1989-90, 2002-06, 08-10*
- 1976- American Institute for the Conservation of Historic and Artistic Works, *P.A. Paintings Group Chair 1984*

RUDY LAUERMAN

Manager of Public Programs

rlauerman@dia.org

PROFESSIONAL EXPERIENCE

1994-Present: Manager of Public Programs, DIA

*Curator of Friday Night Live! concert series of music from all genres and cultures.
Programmer of Brunch with Bach classical chamber music series, programmer for
Sunday Music Bar cross-cultural acoustic music series.*

2000-Present: Archival Recording Engineer, Michigan Opera Theatre

*Record for archival purposes and provide live audio mix for broadcast of all Michigan
Opera Theatre productions.*

1991-1994: Audio-Visual Systems Specialist, Detroit Institute of Arts

*Responsible for design and operation of Audio-Visual systems in the Detroit Institute of
Arts. Producer of Educational videos for DIA Special Exhibitions. Responsible for
maintaining archive of film, video, and audio tape.*

1985-1999 Theater Alignment Program Monitor, LucasFilm Ltd.

Evaluated film presentation projection and audio systems in Metro-Detroit film theaters.

Performance Art/Music Projects Productions (producer/Audio Visual designer):

2008 *Guillermo Gomez-Pena: Mapa Corpo*

2006 *John Cage: Europera* (performer)

2004 *Terry Riley: In C 40th anniversary performance* (harpsichordist/producer)

1994 *Guillermo Gomez-Pena: Temple of Confessions*

1994 *Guillermo Gomez-Pena: Borderama*

Recordings:

2011 *Leroy Jenkins with the New Chamber Jazz Quintet* (Geodisc)

2011 *Spencer Barefield, Anthony Holland, Tani Tabbal: Transdimensional Space
Window* (Geodisc)

2011 *Douglas Ewart, Spencer Barefield, Tani Tabbal* (Geodisc)

2011 *Wendell Harrison: It's About Damn Time* (Rebirth)

1996 *Bemsha Swing* (Blue Note) Assistant Recording Engineer

1995 *St. Clair Trio: Hobson's Choice* (Koch) Assistant Recording Engineer

1992 *Wendell Harrison: Live in Concert* (Rebirth)

1989 *Roy Brooks: Duet in Detroit* (Enja)

1988 *Roscoe Mitchell Sound Ensemble: Live in Detroit* (CEMCA)

AWARDS AND DISTINCTIONS

2004 *Best in Detroit: Terry Riley: In C 40th anniversary performance*
Metro Times

EXHIBITS (as curator):

- 2014 *Watch Me Move: The Animation Show*
- 2010 Paul McPharlin Puppetry Collection, rotating gallery exhibit
- 2000 *Punch's Progress: A Century of American Puppetry*
- 1997 *Half Past Autumn: The Art of Gordon Parks*
- 1998 *Fallen Stages: Drawings and Prints by Mark Fox*
- 1997 *Orlando Furioso: Sicilian Rod Puppets*
- 1996 *Portrait Photographs from the Bill Kennedy Archive*
- 1995 *Marionettes and Illustrations by Paul McPharlin and Marjorie Batchelder*
- 1993 *Rudolf Bickel: Film Advertising Illustrations of the 1930s*
- 1991 *African-American Independent Cinema 1930-1950: Photographs and Posters from the James E. Wheeler Collection*

COMMITTEE MEMBERSHIPS

- 2012 Curatorial Committee
Dlectricity
- 2013 Advisory Committee
Kresge Arts in Detroit
- 2014 Curatorial Committee
Dlectricity

AWARDS AND DISTINCTIONS

- 2002 Citation of Honor
Puppeteers of America
- 2009 Restoration award (DIA Auditorium)
Preservation Wayne

JEFFREY ABT – CURRICULUM VITAE

Professor jeffrey.abt@wayne.edu

James Pearson Duffy Department of Art and Art History
Wayne State University

EXPERIENCE

Professional

2012 - Present: Professor, Department of Art and Art History, Wayne State University
1989 - 2012: Associate Professor, Department of Art and Art History, Wayne State University
2010-2011: Interim Associate Dean, College of Fine, Performing and Communication Arts, Wayne State
2007 - 2008: Interim Assistant Dean, College of Fine, Performing and Communication Arts, Wayne State
1989 - 1994: Chairman, Department of Art and Art History, Wayne State University
1987 - 1989: Acting Director, David and Alfred Smart Museum of Art, University of Chicago
1986 - 1987: Assistant Director, Smart Museum of Art, University of Chicago
1980 - 1986: Exhibitions Coordinator, Special Collections Research Center, University of Chicago
Library
1978 - 1980: General Manager, Billy Hork Galleries, Ltd., Chicago, Illinois
1977 - 1978: Curator of Collections, Wichita Art Museum, Wichita, Kansas
1973 - 1977: Instructor, Adult and Community Education, Des Moines Public Schools

EDUCATION

Master of Fine Arts (with honors), 1977, Drake University
1971-72, Hebrew Union College – Jewish Institute of Religion, Jerusalem
Bachelor of Fine Arts (with honors), 1971, Drake University

BIOGRAPHICAL SUMMARIES

Who's Who in America, 1990–present
Who's Who in American Art, 1992–present
Who's Who in the Midwest, 2000–present
Contemporary Authors Online (Gale), 2003-present

WORK IN PROGRESS

- “Detroit’s Art: A Museum, A City, and the Fortunes that Bind Them” [working title, book project]
- “Museum Jews: From Ritual Objects to the Avant-Garde” [working title, book project] Series of paintings exploring the poetics of display, sacred spaces, and transience

BOOKS

- *American Egyptologist: The Life of James Henry Breasted and the Creation of His Oriental Institute* (Chicago: University of Chicago Press, 2011). E-book edition, March 2012; Second hardback printing, May 2012; paperback edition, March 2013.
- *A Museum on the Verge: A Socioeconomic History of the Detroit Institute of Arts, 1882-2000* (Detroit: Wayne State University Press, 2001).

ARTICLES (most recent and significant only -- complete list available on request)

- “Personifying the Museum: Incorporation and Biography in American Museum History” in *Museums and Biography*, edited by Kate Hill (Suffolk, UK: Boydell and Brewer, Ltd., 2012), 133-44.
- “A Prehistory of the Detroit Institute of Arts Reinstallation,” *Curator: A Museum Journal*, 52, 1 (January 2009): 13-33.

- “Origins of the Public Museum,” *Blackwell Companion to Museum Studies*, ed. Sharon J. Macdonald (Oxford: Blackwell Publishing, 2006), 115-34.
- “Drawing Over Photographs: James H. Breasted and the Scientizing of Egyptian Epigraphy, 1895-1928.” *Visual Resources: An International Journal of Documentation* XIV (Fall 1998): 16-69.
- “The Breasted-Rockefeller Egyptian Museum Project: Philanthropy, Cultural Imperialism, and National Resistance.” *Art History* 19, 4 (December 1996): 551-72.
- “Toward a Historian’s Laboratory: The Breasted-Rockefeller Museum Projects in Egypt, Palestine, and America.” *Journal of the American Research Center in Egypt* 33 (1996): 173-94.
- “Museum, History.” *The Dictionary of Art* (London: Macmillan Publishers Ltd., 1996), 22: 354-60.
- “James H. Breasted and the Oriental Institute, 1894-1935.” *Research Reports from the Rockefeller Archive Center* (Spring 1993): 1-4.
- “A History of Art Collecting and Museums at the University of Chicago” (co-authored with Richard A. Born). *The David and Alfred Smart Museum of Art, University of Chicago, Guide to the Collections* (New York: Hudson Hills Press, 1990), 13-19.

Reviews (scholarly/specialist publications)

- Leann C. Pace, *Near Eastern Archaeology* 76, no. 4 (December 2013): 248-49.
- Rosa Erika Feleg, *Journal of the Illinois State Historical Society* 106, no. 2 (Summer 2013): 339-41.
- Whitney Davis, *caa.reviews* [online] (25 April 2013): www.caareviews.org/reviews/2023
- Jeffrey Trask, *American Historical Review* 118, no. 2 (April 2013): 530-31.
- Emily Teeter, *Journal of Near Eastern Studies* 72, no. 1 (April 2013): 144-46.
- Kathleen L. Sheppard, *Isis* [History of Science Society], 104, no. 1 (March 2013): 167-68.
- Allison Karmel Thomason, *Vitae Scholasticae* 30, no. 1 (March 2013): 53-57.
- Boyo Ockinga, *Ancient History: Resources for Teachers* 40, no. 1 (2013): 96-100.
- Morris Bierbrier, *ASTENE (Association for the Study of Travel in Egypt and the Near East) Bulletin*, 54 (Winter 2012-2013):8.
- William Carruthers, *British Journal for the History of Science* 45, no. 4 (December 2012): 691-692.
- Jason Thompson, *Egyptian Archaeology: Bulletin of the Egypt Exploration Society* [UK] 41 (Autumn 2012): 43-44.
- Tim Murray, *Bulletin of the History of Archaeology* 22, no. 2 (2012), 23.
- Sarah Griffiths, *Ancient Egypt: The History, People and Culture of the Nile Valley* [UK] 13, no. 1, issue no. 73 (August/September 2012): 54.

SYMPOSIA AND COLLOQUIA ORGANIZED

- “World’s Fairs and Expositions,” Association for Museum History in collaboration with the Center for Education and Museum Studies, Smithsonian Institution, 2005.
- “Museums, the University, and the City: Museum Studies Purposes and Opportunities,” Wayne State University, May 2005.
- Association for Museum History, conferences: October 2005 (Smithsonian Institution); November 2003 (University of Chicago); February 2003 (New York University).
- “The Visual Arts in a Technological Age: A Centennial Rereading of Walter Benjamin,” Wayne State University, April 1992.

Grace Raso
Documentary Producer / Editor

Diego & Frida in Detroit

Early Production
 Airdate: 2018 TBD

Producer / Director / Writer (November 2013 – present)

Feature documentary chronicling the life and art of Diego Rivera and Frida Kahlo during their time in 1930s Detroit.

When I'm 65

PBS / DPTV
 Airdate: TBD: 10/2015

Producer / Director / Writer (September 2014 – August 2015)

60min documentary for national PBS broadcast looking at the current state of retirement in the US.

Dolores Huerta Film Project
(working title)

Airdate: TBD

Archival Researcher (July 2014 - July 2015)

Feature documentary chronicling the life and work of the United Farm Workers co-founder and civil rights activist Dolores Huerta. Conducted archival research at the Walter P. Reuther Library in Detroit, and CBS News Archives and ABC News Archives in NYC.
 Director: Peter Bratt

PBS Newshour

Airdate: 9/5/14

Producer / Writer (August 2014)

6min piece for PBS Newshour profiling the science behind Lake Erie's recent toxic algal blooms and the potential solutions to curb future occurrences.

DPTV

Detroit Public TV (WTVS)

Freelance Producer / Video Editor (May 2013 – Present)

Produced, wrote, & edited a variety of short format documentaries for broadcast covering topics incl - environmental stories on the Great Lakes, urban renewal in Detroit, and urban agriculture/aquaculture throughout the Rust Belt.

Detroit Art City

Detroit Public TV (WTVS)
 Airdate: 12/11/13

Freelance Video Editor (December 2012 – July 2013)

60min documentary profiling the Detroit Institute of Art through its landmark millage campaign and its attempts to keep art relevant to an ever-changing public.
 Producers: Ed Moore & Genevieve Savage

The Revolutionary Optimists

ITVS & Sundance / Skoll
 Airdate: Independent Lens (6/17/13)
 Theatrical: Shadow Distribution(2013)
 National EMMY Nomination 2014

Field Producer / Associate Producer / Assistant Video Editor
(February 2010 – September 2012)

Feature length verité documentary following children in one Calcutta slum leading their community to a healthier future.
 Field Producer on location in Calcutta.
 Producers: Nicole Newnham & Maren Grainger-Monsen
 Editor: Andrew Gersh & Mary Lampson (Final Cut Pro)

Red Tails

20th Century Fox and Lucasfilm, Ltd.
 Release: January 2012

Freelance Video Editor (October 2011 – December 2011)

Editor of online videos including cast profiles and "making of" videos for the release of *Red Tails*.
 Producer: Rob Wynn (Avid)

PBS Newshour

PBS Frontline / Newshour
 Airdate: 11/24/09

Video Editor (November 2009)

10min piece for PBS Newshour:
Military Program Looks to Tackle Consumer Debt
 Producers: Lowell Bergman & Dan Hirst (Avid)

The Card Game

PBS Frontline
 Airdate: 11/24/09

Assistant Video Editor (July 2009 – November 2009)

60min investigative documentary on the credit card industry.
 Producers: Lowell Bergman & Oriana Zill de Granados
 Editor: Stephanie Challberg (Avid)

Grace Raso
Documentary Producer / Editor

Inside: Interrogating Saddam

National Geographic &
 Winton Dupont Films
 Airdate: 5/27/2010

Explorer: Mystery of the Disembodied Feet

National Geographic
 Airdate: 10/27/09

Black Money

PBS Frontline
 Airdate: 04/07/2009

Lucasfilm, Ltd

Lucas Video Production

Explorer: Inside Bethlehem

National Geographic
 Airdate: December 2007

Young Indiana Jones Documentary Series

Lucasfilm, Ltd. /JAK Films
 Paramount Distribution
 2007-8 release

Education

Carnegie Mellon University
 BA, 2003

Assistant Video Editor (October 2009 – March 2010)

60min documentary on the US interrogation of Saddam Hussein after his capture.
 Producers: Marc Schaffer & Dave Winton
 Editor: Gail Huddleson (Final Cut Pro)

Assistant Video Editor (April 2009 – July 2009)

60min documentary chronicling the latest forensic science techniques used to identify 7 feet washed ashore in British Columbia in 2008.
 Producer: Anna Fitch
 Editor: Don Bernier (Final Cut Pro)

Assistant Video Editor (October 2008 – March 2009)

60min investigative documentary on international corporate bribery.
 Producers: Lowell Bergman & Oriana Zill de Granados
 Editor: Stephanie Challberg (Avid)

First Assistant Video Editor (June 2007 – September 2008)

Staff First Assistant Video Editor, manager of assistant editor team (3 add'l assistants), designed new Filemaker Pro database and tape archive.
 Department Director: Rob Wynn (Avid)

Assistant Video Editor (July 2007 – December 2007)

60min documentary on the waning Christian population of Bethlehem.
 Producer: Bonni Cohen
 Editor: Josh Peterson (Final Cut Pro)

Associate Producer (January 2006 – May 2007)

Associate Producer on series of historical documentaries.
 Executive Producers: George Lucas, Rick McCallum, & David Schneider

The World of John Ford
Lines in the Sand: The Middle East and the Great War
On the Trail of Eliot Ness
The Best Intentions: Treaty of Versailles
Robert Goddard: Mr. Rocket Science
The Large and Greedy Heart of Halide Edib
Ataturk: For the People, Despite the People
The Ottoman Empire: A World of Difference

Production Associate (August 2004- January 2006)

Production Associate on 25 historical documentaries.
 Producers: George Lucas, Rick McCallum, & David Schneider

Major: History & Public Policy
 Minor: Film & Digital Imaging

Major GPA: 3.75
 Dean's List: 2002 & 2003

15 July 2015

Humanities Collections and Reference Resources Program
National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

Dear Humanities Collections and Reference Resources review panel:

With enthusiasm I endorse the Detroit Institute of Art's NEH Humanities Collection and Reference Resources grant application. The museum's proposal for a foundation project to assess the archives—is practical, efficient, and timely. My knowledge of the DIA's archives and history is based on research for my book, *Museum on the Verge: A Socioeconomic History of the Detroit Institute of Arts, 1882-2000*, and related articles which were based on the archival research I did there.

The DIA possesses one of the nation's oldest, most comprehensive, and substantial museum archives. In addition to the important holdings identified in the DIA's proposal, the archives offer invaluable insights into American museum history and the interrelations of museum work and public service over the last 130 years. The founding of the DIA's predecessor institution, the Detroit Museum of Art (1885), was among America's first generation of major art museums, the others including the Metropolitan Museum of Art and Boston Museum of Fine Arts (both 1870), the predecessor of the Philadelphia Museum of Art (1876), and the Art Institute of Chicago (1879). Like them, Detroit's museum began as a not-for-profit institution, but by 1919 had become a city department. That change plunged the museum into the thick of civic affairs as one of many competing priorities that included fire and police services, social welfare, and most recently, pension funding. As such, more than any other American museum, the DIA's leadership has had to continually justify its importance, often during times of great economic distress. The archives thus offer telling and fascinating insights into the particularly complex place of art and culture in our society for well over a century. Accordingly, alongside the value of the archives for understanding the museum's curatorial and acquisitions programs, they also offer a significant resource for museum studies per se—including the role of museums in the public sphere, the development of the museum profession, and the evolution of educational outreach.

My perspective on the significance of museum archives in general and the DIA's in particular is shaped by nearly thirty years of research, writing, and teaching on the history of museums and collecting. Another of my books was based on research in many other archives including the

Special Collections Research Center and Oriental Institute Archives of the University of Chicago, the archives of the Ashmolean Museum and Griffith Institute of Oxford University, the Rockefeller Archives Center, the Smithsonian Institution Archives, and National Archives, United Kingdom. Further, I co-edit the *Museum History Journal*, published in the United Kingdom, and I regularly teach a seminar on museum culture in the DIA, advise dissertators, and supervise graduate-research papers.

Museum studies, and within it museum history research, has grown into a significant field of advanced research in North America and internationally. Far and away, the most important and insufficiently studied resources for this field are museums' archival records, especially those of older and larger institutions like the DIA. Thus, providing more ready access to the DIA's holdings will serve the research and teaching interests of scholars throughout the world while also enabling graduate students to cut their teeth on one of the few areas of modern humanities scholarship in which there are so many opportunities for new and original investigations.

I am happy to assist the DIA with the objectives set out in its proposal. There are many needs to be considered in this process and I would be honored to represent those of scholars and students working in the areas of museum studies generally and museum history in particular.

The DIA is one of our nation's most important museums, its archives represent a major resource for scholars, students, and the general public, and the museum's plan to make its archival materials more widely accessible is sound and urgent. I highly recommend the DIA's proposed project and I hope you will give it every consideration.

Sincerely yours,



Jeffrey Abt
Professor

JEFFREY.ABT@WAYNE.EDU | 313.993-6785 | WWW.JEFFREYABT.NET

July 15, 2015



Humanities Collections and Reference Resources Program
National Endowment for the Humanities
Division of Preservation and Access
400 7th Street SW
Washington, DC 20506

Re: DIA Humanities Collection and Reference Resources Project

Dear Humanities Collections and Reference Resources review panel:

It gives me great pleasure to write this letter in support of the Detroit Institute of Art's NEH Humanities Collection and Reference Resources grant application. The DIA's proposed grant will fund a foundation project that evaluates and identifies key DIA archives for digitization while developing a long-range plan to provide open access to the DIA archives for everyone. This is a vitally important project not only for the DIA but for scholars and students of the history of American art.

As a former education curator of the DIA, author of the monograph on Diego Rivera's *Detroit Industry* frescoes, executive director of the College Art Association and contributor to the DIA archives, I value highly this tremendous resource. The extensive records of these archives are a measure of the major contributions that the DIA has made to the history of art and culture, including the founding of the Archives of American Art and *Art in America*, the organization of thousands of highly scholarly and popular exhibitions, and the cultivation of collectors and educational programs that have brought greater understanding and enjoyment of art to millions of people since the museum's founding in the 1880s. The archives will provide easier access to scholars of art, history and culture and promote the use of original documents. They will also offer the general public a behind-the-scenes view of one of the most important major art museums in the country. This project could also become a means of soliciting records and materials related to the DIA collections, exhibitions and programs.

As a donor of hundreds of research documents related to the *Detroit Industry* murals to the DIA archives over the past ten years, I can testify to the highly professional work of the Head Librarian, Maria R. Ketcham and her staff in organizing, cataloging and properly preserving original documents, photographs and related materials and their dedication to make these archives available to scholars and students. This project will help to fulfill their mission of preservation and access to the DIA archives.

I highly recommend this project to the NEH and look forward to increased scholarly and public usage of the DIA archives online.

Sincerely yours,

A handwritten signature in dark ink, reading 'Linda Downs'. The signature is fluid and cursive, with the first name 'Linda' being more prominent than the last name 'Downs'.

Linda Downs, Executive Director and CEO



16 July 2015

Maria Ketcham, Director
Research Library & Archives
The Detroit Institute of Arts
5200 Woodward Avenue
Detroit, MI 48202

Dear Maria,

I am pleased to hear about the Detroit Institute of Arts' efforts to complete a survey and assessment of its archives. This project encompasses work that will be essential before moving forward on any planned digitizing and preservation efforts the DIA may have for the archives. I fully support your proposed National Endowment for the Humanities grant project to bring this background material and ephemera that complement the DIA's renowned art collection to the forefront so that the public can be made aware of these materials.

I look forward to the day when Detroit Area Library Network (DALNET) constituents and the greater public can access DIA archival material anytime and from any location around the world once you can later move forward on digitization projects. Based on our discussions, your proposed NEH project is the first step towards providing open access to the DIA archival collections. Your project for documenting the DIA archives will further the mission of DALNET to "... provide access to information for research, cultural enrichment, and lifelong learning opportunities."

After your team has assessed and completed initial surveys of the DIA archives, DALNET will be happy to provide technical expertise towards finding a content management system (CMS) and later integrating your archives into a digital environment. If DSpace is the chosen solution for managing your digital archives, DALNET would be happy to provide whatever help we are able for your implementation, as this is the software used for our DALNET Digital Archive. The DIA, as a member institution of DALNET, is certainly invited to make use of this service.

Again, you have the full support of DALNET for your proposed project to assess the DIA archives. I will personally be available to assist you in an advisory capacity and in any other need you may have of me for the project. I look forward to consulting with you on this project and future digital endeavors.

Sincerely,

Steven K. Bowers
Executive Director
Detroit Area Library Network

NEH Application Cover Sheet (MT-258876)

Digital Projects for the Public: Prototyping Grants

PROJECT DIRECTOR

Ms. Erin McLeary
Museum Director
315 Chestnut St.
Philadelphia, PA 19106-2702
USA

E-mail: emcleary@chemheritage.org
Phone: 215-873-8230
Fax:

Field of expertise: History of Science

INSTITUTION

The Chemical Heritage Foundation
Philadelphia, PA 19106-2702

APPLICATION INFORMATION

Title: *Age of Alchemy: The Goldsmith's Daughter*

Grant period: From 2018-01-02 to 2018-12-31

Project field(s): History of Science; Art History and Criticism; Women's History

Description of project: The Chemical Heritage Foundation (CHF) is developing Age of Alchemy, a game exploring alchemy's "Golden Age" in Europe during the 1600s. In this era, alchemy was not a fool's quest for riches and eternal life: it provided economic opportunity, invited curiosity, and examined relationships between humankind and the natural world. Alchemy formed our current ideas about experimental scientific practices and paved the way for modern chemistry. It also impacted period literature, visual art, and music and continues to excite public imagination. Age of Alchemy draws on CHF's collections of alchemical art and rare books to produce a visually rich and historically accurate experience, awakening empathy for past individuals who used experimental work to navigate society. During this prototyping phase, we will work with playtesters and our advisory team of experts to shape key game mechanics and assess levels of audience engagement and the successful communication of our humanities themes.

BUDGET

Outright Request	100,000.00	Cost Sharing	97,420.00
Matching Request	0.00	Total Budget	197,420.00
Total NEH	100,000.00		

GRANT ADMINISTRATOR

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*Age of Alchemy:
The Goldsmith's Daughter
A Game Prototype*

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2. ABSTRACT

The Chemical Heritage Foundation is developing *Age of Alchemy*, a game exploring alchemy's "Golden Age" in Europe during the 1600s. In this era, alchemy was not a fool's quest for riches and eternal life: it provided economic opportunity, invited curiosity, and examined relationships between humankind and the natural world. Alchemy formed our current ideas about experimental scientific practices and paved the way for modern chemistry. It also impacted period literature, visual art, and music and continues to excite public imagination. *Age of Alchemy* draws on CHF's collections of alchemical art and rare books to produce a visually rich and historically accurate experience, awakening empathy for past individuals who used experimental work to navigate society. During this prototyping phase, we will work with playtesters and our advisory team of experts to shape key game mechanics and assess levels of audience engagement and the successful communication of our humanities themes.

Age of Alchemy: The Goldsmith's Daughter ***A Game Prototype***

3. APPLICATION NARRATIVE

3.A) Nature of the request:

The Chemical Heritage Foundation (CHF) is requesting \$100,000 to design, test, and prototype key aspects of *Age of Alchemy*, an interactive game designed for mobile devices. Alchemy has long been misunderstood as a fool's quest for quick riches and everlasting youth, yet its discoveries helped shape our understanding of the natural world and humanity's place within it. Over the past 20 years, scholars have recovered alchemy as a scientific and humanistic discipline in the early modern era, but rarely is this research presented to public audiences. CHF has worked to challenge past interpretations of alchemy through sustained scholarly research, public programs, and exhibitions. *Age of Alchemy* builds on this work to reveal alchemy's literary, cultural, and creative dimensions, drawing players into the economically and socially diverse arenas of alchemical workshops, apothecaries, and laboratories in the 1600s. The visual world of *Age of Alchemy* reinterprets CHF's extensive collections of fine art and rare books, from naturalistic Dutch paintings of busy workshops to cryptic recipes in books of secrets, and transforms these materials into a tactile, visually spectacular, and immersive experience.

We are partnering with Gossamer Games, a Philadelphia-based independent game studio that works with the Entrepreneurial Game Studio (EGS) at the ExCITE Center of Drexel University, to develop an interactive digital prototype for *Age of Alchemy*'s first module *The Goldsmith's Daughter*. Gossamer Games specializes in creating accessible aesthetic-driven gameplay experiences that explore games as an empathetic and expressive art form. EGS brings deep knowledge of innovative game practice, fluency with navigating academic circles, and experience curating engaging digital games for the public. The CHF–Gossamer–EGS partnership unites multiple sets of humanistic and digital expertise to create a game that is historically grounded, visually compelling, and informed by contemporary research on innovative gameplay. In the proposed prototyping phase, we will test essential aspects of the game, gathering feedback and data regarding the efficacy of storytelling content and delivery, accuracy of historic content, satisfaction of gameplay mechanics, and the difficulty and enjoyment of puzzle sequences. By the end of the prototyping period, we will produce two sets of interactive content. The first set tests specific player interactions (mechanics) inspired by the game's three core dynamics: explore, interpret, and experiment. These tests will allow us to assess player engagement before the mechanics are fully implemented into the game. The second set tests interactive storyboards for the prototype's five levels, simulating player decision points that will be expanded in later phases of development. This completed prototyping phase will lead to structuring our application for an NEH Production Grant to fully develop and deploy *Age of Alchemy*.

3.B) Humanities content:

How and why do we work to understand the natural world around us, and how and why do we attempt to transform it? These questions, which continue to form the core of artistic and scientific innovation, lay at the central aims of early modern alchemy. Despite its ubiquity until the mid-1700s, alchemy has since been misunderstood as occult magic or a delusional search for riches. However, humanities research over the past 20 years has revealed alchemy as both a creative art and an

experimental science. Alchemy offered both tools and techniques, and also a method for manipulating the natural world and thereby understanding humanity's place in the cosmos.

Age of Alchemy explores a key moment in time when art, language, and literature were integral to science, medicine, chemistry, and experimentation. Early modern alchemy was a testing ground. It was not always culturally accepted, not always done well, and sometimes led to disastrous results. But its impact was undeniable and its discoveries helped shape the modern world. The purpose of this digital game is to engage our audiences in this compelling humanities content in an immersive, playful, and novel way. Through stories, characters, playful puzzles, rich visuals, immersive settings, music, art, symbology, adventurous action, and impactful decision-making, we will invite users to engage in strategic play that explores the fascinating, rich, and often obscured impact that alchemy has had on the cultures of art and science.

Age of Alchemy will create a playful and experimental path to understanding the goals and cultural importance of alchemical practice. Our proof-of-concept game module, *The Goldsmith's Daughter*, will focus on the fictional character of Viola, a goldsmith's daughter living in London during the mid-1600s. As a woman, Viola is barred from taking over her father's goldsmith shop. At the start of the game, she is about to be married to a man who will stand to inherit her father's business and who is uninterested in Viola as an active partner in the shop. The game's five levels follow Viola as she risks everything to trick her father, escape her impending marriage, and set off on her own alchemical quest. The game is set in the active city center of London so that players can interact with English-language period texts. A majority of the paintings, works on paper, and rare books held in our collections date from the mid-1600s, allowing game design to draw from rich, historically relevant sources. The inclusion of Dutch and Flemish paintings as visual source material will allow players to learn about the lively artistic and scientific exchange between the Netherlands and England during this period, and can eventually contribute to future game modules that unfold outside of England.

This first game module will be structured around three core humanities themes:

1. ***Alchemy as a Cross-Disciplinary Endeavor.*** Alchemy was a cross-disciplinary early modern practice dedicated to understanding the natural world, and thus it is crucial to both the histories of science and art.
2. ***Diversity of Alchemy's Practitioners.*** Alchemy was a pursuit practiced by individuals who ranged from elite "experts" to working artisans. Alchemists existed at different levels of society, traveled across geographic boundaries, and worked in and for many different communities.
3. ***Women's Networks of Alchemical Practice.*** Recent historical research has shed light on women's important roles as alchemical practitioners and theorists, reversing past neglect of women's participation in empirical work.

The mystery and romance of alchemy invites curiosity, but its realities are far more compelling. Leading contemporary historians of science, including Lawrence Principe (*Chymists and Chymistry*, 2007), Bruce T. Moran (*Distilling Knowledge*, 2005), Tara Nummedal (*Alchemy and Authority in the Holy Roman Empire*, 2007), William R. Newman (*Promethean Ambitions*, 2004), and Pamela Smith (*The Body of the Artisan*, 2004), have worked to restore alchemy's reputation within the scholarly community. Early modern alchemists were engaged in a wide array of enterprises, from mining and metalworking, to dye and pigment manufacturing, to the production of chemical medicine and the study of natural phenomena. Alchemical treatises circulated knowledge across a broad spectrum of

society, from artisans and tradesmen to scholars and princes. CHF houses a treasure trove of depictions of early modern experimenters from the 1500s through the 1800s, including more than 100 paintings and 200 works on paper. In addition to paintings and prints, the CHF Othmer Library of Chemical History holds roughly 1,000 volumes of rare books and manuscripts related to alchemy, many of which are richly illustrated. The *Age of Alchemy* game project puts CHF's interrelated collections in dialogue with one another in an accessible format created for public audiences, allowing players to step into the past and experience the humanistic dimensions of early modern scientific knowledge-making.

The public's understanding of alchemy and its role in shaping our modern ideas of transformation and matter remains clouded by associations with occultism and fraud. Images of alchemy, both portrayals of workshop practice and alchemical symbology, have remained largely impenetrable to the broader public, who are unfamiliar with the period's symbolism and complex visual and literary allegories. Moving beyond the scholarly page and outside our museum walls, *Age of Alchemy* uses historical collections to offer a new approach to telling the story of alchemy and its impact on our world. The game unites the history of scientific inquiry with art history and material culture to tell vital stories of inspiration, transformation, and experimentation, with the potential to help bridge modern disciplinary divisions and recapture our shared histories.

1. *Alchemy as a Cross-Disciplinary Endeavor.*

Alchemists were not only chemical workers, but often authors, poets, composers, theorists, theologians, physicians, artists, and artisans. During the early modern period, artists and alchemists were both engaged in a search to understand the natural world. They also shared a practical relationship: many artists' goods were manufactured via alchemy, including pigments and dyes, effects in glassmaking and printmaking, and metal alloys for sculpture and ornament. Alchemical work encompassed technical skill, research and writing, experimental and creative labor. *Age of Alchemy* will present the diversity of alchemical pursuits and invite players to consider an early modern worldview in which science and artistic practice and theory are inextricably connected. One primary way in which this theme will be communicated is via the use of early modern paintings and prints as visual resources for developing the vivid 3D environments entered by players. By exploring alchemy through artworks, players will be primed to consider the close connections between diverse scientific and creative practices during the 1600s.

Artworks in CHF collections portray early modern alchemists at work and provide clues about the lived experience of alchemical experimentation. However, by nature of artistic license, these images also illustrate the widely varying perceptions of alchemical goals in the period, from affirmative admiration to satirical reproach. The scope of artists represented in CHF's collections, including Adriaen van de Venne (1589–1662), Thomas Wijck (1616–1677), and Richard Brakenburgh (1650–1702), demonstrate the rise and popularization of the alchemist scene as an artistic subject. The practices visualized include reading and writing, the study of globes and charts, as well as *chrysopoeia* (gold-making), *distillation* (reducing a substance to its essence), *iatrochemistry* (the making of chemical medicines), and other empirical processes.

Beyond the representation of tools and theories, *Age of Alchemy* will present alchemy more fully as a social enterprise. As revealed in the foundational research of Lloyd DeWitt and Lawrence Principe, artistic depictions of alchemists offer insight not only into the wide range of alchemical processes, but also the spectrum of opinions and attitudes that early modern people held about alchemy. Art-historical scholars such as Alison Kettering have recently begun to explore the

importance of early modern Netherlandish images that represent work, and their role as models of social mores and values. We will build on this research to develop storylines and environments that explore the position of the alchemist as an artisan, laborer, and creative worker.

2. Diversity of Alchemy's Practitioners.

A crucial aspect that has emerged in recent research into the history of alchemy is the diversity of its practitioners, philosophers, and patrons. *Age of Alchemy* places a young woman from a non-noble family at the center of its story, centering a non-elite practice of alchemy that draws on current humanities scholarship. The most public and well-known alchemical figures in the early modern era were royal patrons such as the Holy Roman Emperor and King of Bavaria Rudolf II (1552–1612), who drew leading alchemists to his court, or Queen Christina of Sweden (1626–1689), who kept a laboratory in her basement and experimented with courtly associates. Yet alchemy was not limited to elite spheres: it was practiced widely in humble contexts, such as the homes of village apothecaries or in private kitchens. In some cases, alchemical knowledge could also bring figures from society's periphery into the center. As one example, Daniel Jutte has recently explored the evidence for Jewish individuals who gained court entry specifically because of their alchemical expertise. Despite taking advantage of Jewish alchemists as “traders in clandestine knowledge,” this clandestine aspect of alchemical practice also made them a target for suspicion and discrimination by Christians.

The new history of alchemy has also reconsidered artisans and craftspeople as critically engaged in alchemical pursuits, particularly in artisanal professions such as goldsmithing. In domestic or “household” alchemy, husbands, wives, and children worked side-by-side in the preparation of alchemical materials and in conducting experiments. By focusing on a merchant-class woman as the central character, *Age of Alchemy* will allow players to traverse the different levels of society in which alchemy operated, from humble artisanal shops to the royal courts. In this prototyping phase, we will refine our understanding of alchemical practitioners and theorists both in and outside the arena of the court and integrate representative personalities into our game narrative levels. Through the barriers that the central character Viola faces, players will gain insight into the classed, racialized, and gendered contexts for early modern alchemical practice.

3. Women's Networks of Alchemical Practice.

Current historical scholarship has led to a new understanding of women's contributions to alchemy as practitioners and theorists during the early modern era. Scholars including Meredith Ray, Jayne Archer, and Kathleen P. Long have explored how alchemical practices, by their nature of trade secrecy and clandestine knowledge, could generate intimate communities of knowledge in which women could converse with, debate, and collaborate with other women and men. This new research has surfaced numerous texts penned by female authors that range from practical alchemical recipes to theoretical cosmology, re-centering women's contributions to alchemical knowledge production. Like much scholarly research, however, the truth of women's participation in alchemical work has yet to filter into the popular imagination. *Age of Alchemy* will help to bridge this gap by offering an immersive and accessible story featuring a compelling female character engaged in experimental work.

As central character Viola advances in her journey in *Age of Alchemy*, players will learn about the challenges faced by female “adepts” during the 1600s, including the difficulty of gaining access to knowledge and entry into male-dominated spaces of chemical work. Players will also have the chance to experiment, interpret, negotiate, and create, demonstrating a range of both the limitations and achievements experienced by women in their historical context. Players will

encounter the gendered aspects of alchemical philosophical and spiritual symbolism itself in primary source texts. In conflict with older Aristotelian concepts that portrayed the male as the highest and most perfect form, many early modern alchemical treatises displayed uniquely fluid ideas of gender, arguing that the merging of male and female halves together was necessary to create a purified nature. Artists and manuscript illustrators adopted a wide variety of male and female forms to picture these processes.

In addition to metaphysical or symbolic imagery, many of the artworks in CHF's collections offer more straightforward depictions of women engaged in alchemical practice, from reading recipes to manipulating materials to supporting the household laboratory or workshop. At times, women also play the role of the voice of reason in satirical pictures depicting alchemy as a fool's errand. In *Age of Alchemy*, we will be able to nuance these naturalistic or humorous artistic portrayals of women's involvement in alchemy from a historically grounded perspective.

Comparable Projects and Unique Perspective of Age of Alchemy

There are a small number of humanities-based projects about the history of early modern science and alchemy, and even fewer of these projects have major digital elements. The *Making and Knowing Project*, directed by Pamela H. Smith (<http://www.makingandknowing.org/>), and the *Chymistry of Isaac Newton Project*, edited by William R. Newman (<http://webapp1.dlib.indiana.edu/newton/>) are two important digital humanities projects that are comparable to the goals for *Age of Alchemy*. The *Making and Knowing Project* exemplifies the diversity of approaches that can be employed to learn about early modern science. Specifically, *Making and Knowing's* success in recreating early modern workshop circumstances and recipe experimentation for university students serves as a crucial example of the excitement generated by engaging in actual laboratory/workshop practice. The *Chymistry of Isaac Newton* is an example of a project that performs the important scholarly work of recovering alchemy as a normalized, accepted, and productive component of early modern scientific practice. Unlike these examples, *Age of Alchemy* seeks to reach beyond specialist and academic audiences to the non-specialist public through a focus on accessible narratives and immersive, engaging game play.

The Chemical Heritage Foundation as a Center for the Study of Alchemy

Age of Alchemy will act as the crucial next step in CHF's mission to advance as an interdisciplinary institution on the forefront of digital humanities initiatives and as an important center for the study of the history of alchemy. Alchemy continues to have a central place in the public imagination, as evidenced by the success of the *Harry Potter* series, among numerous other fictional interpretations of alchemy. New interpretive tools and strategies are critical in communicating the realities of alchemy's practice and its continued relevance to the shared histories of art, science and culture. Most recently, CHF's curatorial and research teams contributed to the creation of *Art and Alchemy: The Mystery of Transformation*, a landmark exhibition staged at the Museum Kunstpalast in Düsseldorf, Germany. Conceived in cooperation with the research group "Art and Knowledge in Pre-Modern Europe" at the Max Planck Institute for the History of Science in Berlin, this exhibition contained over 250 works and welcomed more than 40,000 visitors—vividly demonstrating alchemy's continued hold on the public imagination. In the winter of 2014, CHF debuted the exhibition *Books of Secrets: Writing and Reading Alchemy*. Rare alchemical manuscripts were displayed alongside paintings and prints depicting alchemists at work, as well as real tools and materials of the laboratory. In 2016 and 2017, CHF offered numerous public programs that merged alchemical histories with storytelling, games, and material culture, including our recent *Alchemical Storytime*, at which museum visitors were invited to hear CHF staff members tell the spectacular-but-true tales of early modern alchemists' adventures and misadventures.

In their exploration of the natural world and their desire to transform and perfect it, early modern alchemists shaped the practice of science, medicine, technology, and art. Their influence on our modern understanding of those fields continues to resonate. *Age of Alchemy* will bring this part of our collective past to light for public audiences.

3.C) Project format:

Age of Alchemy is envisioned as a first-person game that combines a deeply researched choice-based narrative with challenging puzzles and hands-on experimentation. Players will take on the role and perspective of an early modern individual—in the case of this prototype, a young woman—and navigate built 3-D environments drawn from CHF’s art and manuscript collections. The emotional immediacy of first-person games allows *Age of Alchemy* to build empathy for past actors and understanding of the early modern mindset—one that believed in both empirical research and transmutative possibility. Individuals who engaged with alchemy were not fools or greedy charlatans; they were entrepreneurs, experimenters, teachers, and artists.

Players will enter early modern European society through the character of Viola, who, despite her talent, is barred by guild rules from inheriting her father’s profession. Many trades and areas of study were closed to women, even those who gained skill and knowledge in family workshops. But alchemists did not belong to a guild or require a university degree to practice their art. Many women practiced alchemical techniques such as distillation at the domestic level, as hands-on knowledge about medicinal cures, dyes and color-making, and other necessary chemical products was widespread. By allowing players to enter the story through Viola, the game broadens audience perspectives regarding who was “allowed” access to scientific knowledge and expertise in the past, and whose contributions to natural knowledge have been either effaced or preserved.

The prototype will develop and test key game mechanics, to gauge how players interact with the game environment and experiences of **Explore**, **Interpret**, and **Experiment**. These dynamics will support our goal of presenting alchemy as a cross-disciplinary and creative pursuit. Alchemists engaged with art and literature, producing emblems, images, and allegorical prose; they pondered philosophical and cosmological truths and crafted essays on the alchemical nature of souls; they investigated the properties of matter and sought to better understand humankind’s place in a diverse and complicated universe. Players, in the role of an aspiring alchemist, will experience the integration of pictures, symbols, tools, recipes, raw materials, theory, and manual skill in the quest for alchemical success. This artistic and experimental harmony of past alchemical practices offers players a unique counterpoint to contemporary disciplinary divisions between arts and humanities and STEM fields, and invites new dialogue on the longstanding importance of the humanities in shaping our perceptions of science.

In the **Explore** dynamic, players will enter the world of early modern alchemy through 3D recreations of environments inspired by images from CHF’s art collections. This mechanic will immerse players in a new and challenging world and invite them to stretch their curiosity. Players will be able to navigate through a detailed early modern laboratory environment, collecting useful objects such as alembics and flasks, crucibles and tongs, manuscripts and globes. Players will be able to move around the room at their own leisure, finding useful laboratory equipment and observing their dimensionality and function in context.

In the **Interpret** dynamic, players will delve into the textual and visual materials that communicated alchemical ideas. This dynamic will demonstrate the importance of texts and images to alchemical work, and allow players to see the contexts and forms in which alchemical ideas were actually circulated. Using CHF's digitized library holdings, the game will incorporate rich historical visuals directly into the gameplay. Players will read digitized versions of primary historical alchemical texts or emblems from the early modern era. Players will be aided by prompts and game mechanics in order to translate the content into easily readable modern-English material that players will then rely on to conduct factual and historically accurate alchemical processes. Through these interpretation sequences, players will gain simple recipes and processes that are added to their workshop journal. This journal will also store hints and secrets, acting as both a reference and guide resource.

In the **Experiment** dynamic, players will test their newfound knowledge in the laboratory. This dynamic provides a playful look at the kinds of knowledge that can be gained by hands-on and empirical work. Players will control laboratory equipment and ingredients through tactile object interactions with their mobile device inputs. Through simple movements and actions such as tilting and shaking their device, players can work with common laboratory materials such as gold and mercury, distilled acids, and charcoal. They will experience first-hand the difficulty of controlling experiments and reacting when flames become too hot, or untempered glassware shatters.

Some of the narrative challenges and interactions that players will experience include finding both mentors and challengers within a pantheon of real historical experts; proving mastery over both symbols and experimental chemical work; and testing recipes from both elite alchemical compendiums and humbler recipe texts (for instance Sir Hugh Plat's 1602 *Delightes for Ladies*).

Successful Models

Age of Alchemy's design draws upon the use of exploration and experimentation in point and click adventure games to immerse players in fantastic worlds, a genre which has seen a recent resurgence with award winning titles such as *The Walking Dead*, *Gone Home*, *Firewatch*, and *1979 Revolution: Black Friday*. *Age of Alchemy* will adopt the hallmark design components of the adventure game genre, including inventory systems, puzzle design, and branching narrative to leverage the familiarity of this game genre to tell a new story about the precursors to modern science. *Age of Alchemy* also draws on recent innovations in mobile games such as *The Room* that explore the tactile potential of mobile device inputs. Furthermore, the popularity of *The Room*'s blending of stylized historical environments with uniquely tangible functionality and complex puzzle challenges suggests *Age of Alchemy* may appeal to similar audiences. The specific influences of these game titles on our design are described in further detail in our game design document.

Alchemy, as a game mechanic rather than a historical subject, appears frequently in popular commercial games, including the long-running *Atelier* series and the bestselling *The Elder Scrolls: Skyrim*. In most gaming usage, the term "alchemy" denotes "potion making," with fanciful ingredients ranging from "vampire dust" to "moon sugar." However, the popularity and ubiquity of this mechanic suggests that it may be both familiar and appealing within gaming communities. In our prototype phase, we will test the appeal of *Age of Alchemy*'s mechanics and their potential to reach a broad non-scholarly audience.

3.D) Audience and distribution:

The audience for the proposed prototype will primarily consist of playtesters as described in our evaluation plan, our Advisory Committee, and CHF staff. The proposed audience for the fully developed game, available for Android and iOS devices, will be refined as a result of playtesting and evaluation, but is envisioned as scientifically curious youth and adults (middle school and up). To reach this group, CHF will rely on our diverse array of regular public events, our extensive professional and academic networks, and other communication, marketing, and distribution channels successfully used by CHF to promote its public offerings:

- A short video featuring the finished game will be used in an extensive social media campaign to promote game distribution. CHF doubled our Facebook and Twitter followers in less than three years and currently have over 17,000 social media followers on Twitter, Facebook, LinkedIn, Instagram, and Pinterest, with an average of over 50,000 engagements (likes, replies, shares, and click-throughs) per year since 2014.
- *Age of Alchemy* will be promoted on CHF's website, which receives over 100,000 hits per month during the school year, using a model similar to that used for CHF's *Chemcrafter* app (<http://assets.chemheritage.org/ChemCrafter/>). Since its release in April 2014, *Chemcrafter* has been downloaded 851,000 times. Chemheritage.org is a trusted source for history of science information, with over 1.7 million visitors in the past fiscal year, more than double the number of visitors from just five years earlier.
- Promotional materials will be developed for CHF Museum visitors, both walk-in visitors and the teachers and students who participate in our museum tour program.
- *Age of Alchemy* will be advertised in CHF's quarterly publication *Distillations*, which has a distribution of over 17,000 readers.
- Additional opportunities for promoting *Age of Alchemy* lie in CHF's programmatic relationships with other Philadelphia-area science museums (such as the co-curated popular monthly *Science at Tap* series held at a local bar) and through CHF's role as a core organizer of the Philadelphia Science Festival.

3.E) Project evaluation:

Kate Haley Goldman will serve as the evaluation consultant for the *Age of Alchemy*, overseeing game conceptual and usability testing. The evaluation is designed to be both iterative and deeply collaborative, utilizing outside expertise to inform and supplement a strong internal team. Formative evaluation is especially critical for *Age of Alchemy* because it includes users in the development process, making the game more robust and interesting to players. This formative evaluation serves the team's iterative design process, aiding in determining conceptual clarity, players' motivations and behaviors, game mechanics, and structural feasibility. We seek to gather data about the following central design questions in this prototyping phase of development:

- 1) Does the narrative content and structure tell an interesting story?
- 2) Does the in-game hint system provide ample clues that create a balance between challenge and frustration?
- 3) Do interactions with laboratory equipment feel intuitive and tactile?
- 4) Is the process of translating information from source texts to modern English enjoyable?
- 5) Is there enough clear information available for players to successfully complete alchemical recipes?

Haley Goldman will work in tandem with CHF, EGS, and Gossamer Games to aid in the evaluation of the game and the interpretation of the results of these evaluations. Haley Goldman will design all

evaluation materials, including testing elements, protocols, and data collection sheets. In late February/early March 2018, the team will participate in a playtesting training, to allow EGS and Gossamer Games to continue monthly evaluation. Haley Goldman will lead the initial playtesting session, handing off this duty to EGS and Gossamer partners for the subsequent sessions. Haley Goldman will review the collected data and lead a debriefing session by phone after each session to help team members codify and interpret the testing session results.

During playtesting sessions, 12-20 participants with varying degrees of familiarity with video games will play through a section of the game's interactive digital storyboard that represents the same actions and interactions players will perform in the completed version of the game. We will hold these sessions with a variety of age groups, including middle and high school students, college students, and scientifically curious adults. We will also vary locations, including Drexel University's ExCITe Center (with its "captive audience" of over 40 students from various disciplines), CHF's popular onsite First Friday programs, and CHF's Science on Tap program. Sessions will last approximately 90 minutes, and small incentives may be offered to participants. At the conclusion of each playtesting session, participants will be given a survey that collects information on their background and their experience with the game. The playtesting survey, developed by Haley Goldman, will be structured to collect measurable data that addresses the core design questions in this phase of development. The evaluation will culminate in a compilation of lessons learned and recommendations for future development.

3.F) Rights, permissions, and licensing:

The bulk of the digital source material used to create *Age of Alchemy* consists of high-resolution images of CHF-owned manuscripts and artworks created by CHF staff, and raise no issues related to rights. CHF will retain intellectual property rights to the digital content created by CHF for *Age of Alchemy* and will own the executable when delivered. EGS will retain the rights to use the game for further research (i.e., non-commercial) and publishing purposes. Gossamer Games will retain the rights to the source code, with the exception of the CHF intellectual property.

For either the prototype or the full version of the game, if developed, CHF may choose to license a non-commercial recording of a musical score that appears in the 1618 alchemical work *Atalanta fugiens*, performed by the ensemble Les Canards Chantants and recorded at CHF. We do not anticipate the need to license images for the prototype. Gossamer Games will license professional software for use in development of the prototype, including Maya (3D design and animation software), Adobe Creative Cloud (illustration and image software), and Unity Pro (game development software). All costs for licensing are included in the budget.

3.G) Humanities Advisers:

CHF Key Staff & Project Team

Erin McLeary, Ph.D., CHF Museum Director, will serve as Project Director, guiding the internal CHF project team and aligning the overall timeline and deliverables for Drexel's Entrepreneurial Game Studio, Gossamer Games, and the CHF core team. McLeary brings extensive experience in exhibition and media project development.

Charles McGhee Hassrick, CHF Digital Projects Manager, directs and manages the CHF Museum's digital initiatives. He will be coordinating project timelines, milestones, meetings, and deliverables for EGS, Gossamer Games, the Advisory Committee, and the CHF team. He also

brings to the project his expertise in research and exhibit, content, and digital interactive development with many museums, including the Cleveland Museum of Natural History and the Museum of Science and Industry in Chicago.

Elisabeth Berry Drago, Ph.D., CHF Public History Fellow, is an art historian specializing in 17th-century Netherlandish art and has worked with the CHF collections in various capacities for the past four years. She is currently developing a book from her dissertation on 17th-century artist Thomas Wijck and what his paintings of alchemists communicate about the relationship of art and science. She will provide content expertise and additional project management support.

Nicole Cook, Ph.D., CHF Fine Art Researcher, conducts comprehensive research on CHF's art objects, in particular the collections of paintings and prints related to the history of alchemy and science. She is a specialist in early modern art and visual culture and also has experience with project management on digital collections and publication initiatives. She will provide content expertise and additional project management support.

Kate Haley Goldman, Independent Evaluator, will work with the CHF team to develop methodologies and to analyze and complete all testing and prototyping, bringing over 20 years of experience conducting evaluations in museums, cultural heritage institutions, nature centers, arts organizations, and other non-profits.

Humanities Advisers

Donna Bilak, Ph.D., Lecturer in History, Columbia University, brings a combination of scholarly and practical knowledge of alchemical practices. From 2014-2017, Bilak served as a postdoctoral fellow for the Columbia University-CHF joint "Making and Knowing" Project. Much of her research focuses on the *Atalanta fugiens*, an immersive and cross-disciplinary 17th-century manuscript containing poetry, alchemical allegory, and musical fugues that provides a valuable corollary for a modern multi-sensory interactive experience.

Lloyd DeWitt, Ph.D., Chief Curator and Irene Leache Curator of European Art, Chrysler Museum of Art, will bring expertise in early modern European art that will assist the game design team in interpreting and adapting visual assets. As a former CHF research fellow, DeWitt has deep knowledge of our collections. He also researches and publishes widely on Holland's Golden Age of painting, particularly Rembrandt and Jan Lievens, and on the relationship of alchemy and early modern art.

Michelle DiMeo, Ph.D., CHF Director of Digital Library Initiatives, oversees all aspects of digital collection development and is also a historian of early modern science and medicine. She is currently completing a monograph on Katherine Jones, Lady Ranelagh (1615-91), the older sister of the chemist Robert Boyle who had an active intellectual reputation and network of her own. DiMeo was chosen as an advisor for her expertise in early modern science and medicine and for her experience with digital projects.

Bruce Moran, Ph.D., Professor of History, University of Nevada, Reno, was a 2014–15 Cain Distinguished Fellow at CHF and will provide scholarly guidance on the practices of alchemists both inside and beyond the laboratory, their materials, equipment, and theoretical knowledge. A leading historian of science and material culture, Moran's landmark book *Distilling Knowledge* was among the first to fully demonstrate the deep and direct connections between alchemical practices and the emergence of formalized chemical science.

William Newman, Ph.D., Professor of History and Philosophy of Science, Indiana University Bloomington, will bring expertise in the cross-connected worlds of artisanal and alchemical practice and advise on ways to draw out those links for non-scholarly audiences. His scholarly and hands-on work in recreating period alchemical experiments has yielded new knowledge of

the discipline's practices and limitations, and offers a chance for creative input in developing game mechanics based on physical movement and gesture.

Lawrence Principe, Ph.D., Professor of History of Science and Technology, Johns Hopkins University, is a chemist and historian. His work explores the utility and realities of alchemical work in the laboratory. Through deep scholarship and demonstration, he has proved the possibilities of alchemical experimentation and their implications for the modern chemist and researcher. Principe has also worked closely with CHF's art collections and his body of work demonstrates the value of incorporating art and science studies.

David Schaller, Founder and Principal of Eduweb, designs award-winning digital learning games and interactives for museums around the country. He has also written many papers exploring digital media, games, and informal learning, including a chapter about digital learning games in the American Alliance of Museum's *The Digital Museum*. He has an M.A. in Geography and Museum Studies from the University of Minnesota and a B.A. in Humanities from Macalester College.

Pamela Smith, Ph.D., Professor of History, Columbia University, is the director of the *Making and Knowing Project*, a cooperative effort by Columbia University and CHF. The project attempts to access alchemical and artisanal knowledge via recreations in the modern-day laboratory. A historian of science and material culture, Smith's work explores alternative paths to textual knowledge through labor and artistic practice. This emphasis on embodied knowledge and experiential learning offer an innovative praxis that translates unexpectedly well to game theory.

James Voelkel, Ph.D., CHF Curator of Rare Books, Othmer Library of Chemical History and Resident Scholar in CHF's Beckman Center for the History of Chemistry, is a historian of early modern science. Voelkel is also the PI for an NEH sponsored foundation grant for a digital humanities project entitled "A Chymical Encyclopedia, Database, and Repository." He was chosen as an advisor for his experience in the history of early modern science and for his deep understanding of the rare books collection at CHF, which will serve as key assets for the game.

3.H) Digital Media Production Team:

Frank Lee, Ph.D., is Associate Professor of Digital Media at Drexel University and co-founder of Drexel's Game Design Program, ranked one of the top video game design programs in North America. Lee is Founding Director of the Entrepreneurial Game Studio.

Entrepreneurial Game Studio Project Manager (TBD) is responsible for administering the project and contract for the Entrepreneurial Game Studio and acts as a liaison between faculty, Gossamer Games, and the Chemical Heritage Foundation.

Thomas Sharpe is the Director of Gossamer Games and the studio's creative director responsible for the overall design, development, and creation of unique gameplay mechanics and game experiences.

Gossamer Games is an internationally-recognized independent game studio creating ambitious, aesthetic-driven experiences that explore games as an empathetic and expressive art form (<http://gossamer-games.com/>).

3.I) State of the project:

Over the last several years, CHF scholars have engaged in sustained research into the history of alchemy, producing a body of knowledge that will enrich and inform the project's narratives. CHF scholars have conducted extensive research into and analysis of our alchemical paintings collection and Fine Art Researcher Nicole Cook is currently undertaking a complete research survey of the CHF art collections. Public History Fellow and art historian Elisabeth Berry Drago recently organized detailed data gathered on 89 key alchemical paintings, which she then tagged and indexed with relevant subjects and themes. The data includes scholarly research, object definitions, and interconnections between objects and terms. As a team, we identified key alchemical processes, as well as period artifacts that provide deeper social-historical contexts to the goals of alchemists and the ways in which they worked. We also took high-quality images of the painting collection to allow for close study and to prepare for future game design phases.

Michelle DiMeo, CHF Director of Digital Library Initiatives, and James Voelkel, CHF Curator of Rare Books—both of whom will serve as project humanities advisors—have been deeply engaged in digitizing our rare book collections, which include illustrations and etchings from alchemical literary works. The digitization of this collection has enabled us to deepen the game experience into the books and artwork alchemists used in their own research and work, which were essential to alchemical practice and which are often represented in the paintings that form the game's visual world. DiMeo and Voelkel have also both contributed to the development of the game's humanities themes.

In preparation for the Prototyping Phase, CHF's team of content specialists have been working with Gossamer Games and the creative team at EGS to prepare the Design Document and to develop an engaging and historically rich storyline. Over the past year, the EGS team and Gossamer Games led CHF staff through a series of design sprints and charrettes with the goal of honing the game mechanics, defining humanities assets and content, and refining storylines and experience.

3.J) Work plan:

January 2018: Advisory Board, EGS, Gossamer, Evaluator, and CHF team meet to kick off the prototyping Phase: recap Phase I design work; discuss roles and project calendar; define user testing and prototyping roles and milestones; and finalize the design and humanities content of the first puzzle. EGS, Gossamer, and CHF develop paper prototype and recruitment plan for paper prototyping.

February 2018: The CHF team continues content development. Gossamer begins work on game design, functionality, and art, and finalizes plan for development and testing of interactive storyboards for five game levels and three interactive game mechanics. EGS, Gossamer, Evaluator, and CHF initiate paper prototyping with targeted audiences. Gossamer drafts the interactive storyboard for game Level 1. CHF, EGS, and Gossamer initiate regular, twice-monthly meetings to review progress and deliverables that will continue through the work period.

March 2018: EGS, Gossamer, and CHF attend playtesting training run by Evaluator. The CHF team continues content development and digitization of required CHF assets. Gossamer continues work on the interactive storyboard for game Level 1 and develops a draft of the first game mechanic, Experiment.

April 2018: CHF continues content development and digitization. Gossamer conducts user testing of the Experiment mechanic and the interactive storyboard for Level 1, recruiting participants from the Philadelphia Science Festival.

May 2018: Gossamer drafts the interactive storyboard for Level 2 of the game; tests the Experiment mechanic; and develops a second draft of the Experiment mechanic. Advisory Board, CHF, EGS, Gossamer, and Evaluator meet to review interactive storyboards for game Levels 1 and 2 and the Experiment mechanic. CHF scholars conduct user testing at the Historians of Netherlandish Art Quadrennial Conference.

June 2018: CHF adjusts content based on Advisory Board feedback. Gossamer initiates second draft of the interactive storyboard for game Level 2 and updates the Experiment mechanic according to testing results.

July 2018: Gossamer creates and tests an interactive storyboard for game Level 3 and creates the first draft of the second interactive mechanic, Interpret.

August 2018: CHF continues content development. Gossamer develops and tests second drafts of the interactive storyboard for game Level 3 and the Interpret mechanic.

September 2018: The Advisory Board, CHF team, Evaluator, Gossamer, and EGS meet to review progress. The CHF team continues to develop content as needed. Gossamer continues work on the second draft of the Interpretation mechanic and drafts and tests the interactive storyboard for game Level 4.

October 2018: Gossamer creates first draft of the third interactive mechanic, Explore, and develops and tests a second draft of the interactive storyboard for game Level 4.

November 2018: Gossamer creates the first draft of the interactive storyboard for game Level 5. Gossamer also continues work on and begins testing Explore mechanic.

December 2018: Gossamer completes and tests second drafts of the Explore mechanic and the interactive storyboard for Level 5. Advisory Committee, EGS, Gossamer, and CHF team conduct final playtesting. Gossamer prepares final prototyped version of the game.

3.K) Organization profile:

The Chemical Heritage Foundation's mission is to foster dialogue on science and technology in society. Through its Museum, Library, and Institute for Research, CHF positions itself as a respected and leading center for collecting, researching, and communicating the intricate relationship between science and society through historical inquiry and narrative. We ground our work in the idea that historical knowledge is crucial to a full appreciation of science and technology, the roles they play in our modern world, and the ways they will help shape the future. **The Entrepreneurial Game Studio** at Drexel University is a creative and experimental game development studio, incubator, and publisher focused on developing the next generation of leaders in the mobile game industry. **Gossamer Games** is an internationally-recognized independent game studio creating ambitious, aesthetic-driven experiences that explore games as an empathetic and expressive art form.

3. L) Fundraising plan:

In the budget presented with this application, the contribution of staff salaries and benefits relies on our operating budget, which draws from both endowment and from our annual fund. The Conference Center costs are an in-kind contribution. The remaining \$15,718 contribution will be covered by a grant from an individual donor to CHF which supports collaborative, collections-based outreach and research projects. \$10,000 from this same grant has already been used to support the conceptual work that has been done to date on *Age of Alchemy*.

When our prototype is developed, CHF will apply for next phase Production funding through NEH to fully produce and release the finalized game.

4. BIBLIOGRAPHY

Humanities References - Primary/Archival Sources

Roy G. Neville Historical Chemical Library and Rare Books Collections, Othmer Library of Chemical History, The Chemical Heritage Foundation.

Humanities References - Secondary Sources

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- Berger, Susanna. *The Art of Philosophy: Visual Thinking in Europe from the Late Renaissance to the Early Enlightenment*. Princeton: Princeton University Press, 2017.
- Berry Drago, Elisabeth. *Thomas Wijck's Painted Alchemists at the Intersection of Art, Science, and Practice*. Ph.D. dissertation. University of Delaware, 2017.
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ERIN H. McLEARY
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Philadelphia, Pa., 19106
215.873.8230/emcleary@chemheritage.org

EXPERIENCE

Chemical Heritage Foundation, Philadelphia, Pa.

Director of the Museum

October 2014–present

Oversee all aspects of museum operations, including collection management and digitization, exhibition development, and visitor services; directly manage a staff of nine and indirectly manage frontline staff. Develop budgets, research funding opportunities, and coordinate grantwriting for museum projects. Conceptualize and coordinate collaborative projects with CHF's Institute for Research; work closely with CHF's manager of public programming to develop, fund, and implement public programs. Develop exhibition calendar, long-term collecting priorities, and audience development initiatives. Serve as a member of CHF's leadership team.

National Constitution Center, Philadelphia, Pa.

Exhibit Developer

May 2011–October 2014

Directed exhibition projects during all phases of development in close collaboration with in-house exhibition team. Conducted rigorous, detailed scholarly research to conceptualize and develop the exhibition story, worked with designers and museum registrar on physical presentation of all aspects of exhibition content, including graphic panels and labels, artifact display, and interactive components, and served as primary project manager for media projects. Solicited and coordinated content feedback from scholarly advisors, drafted exhibition scripts, and directed all editing and revision. Worked with other venues to modify or adapt content, layout, and marketing of traveling exhibitions to meet the NCC's mission and gallery requirements.

Center for Bioethics, University of Pennsylvania, Philadelphia, Pa.

Project Manager

September 2009–May 2011

Collaborated closely with primary investigator on a NIH grant-funded project examining the historical roots and current applications of forensic genetics technologies. Designed and administered surveys assessing current practices in forensic genetics, conducted historical, legal, and popular culture research tracing the development of specific technologies, developed content for and maintained project website, managed communications with project's international working group.

Chemical Heritage Foundation, Philadelphia, Pa.

Curator of Exhibitions; Traveling Exhibits Coordinator

November 2005–February 2009

Led interdisciplinary team of scientists, scholars, and collections staff to create permanent exhibition for new 6000-square-foot museum. Developed and implemented exhibition research and production schedules; supervised and coordinated consultants; conceptualized, researched, and wrote script and labels for approximately 800 objects (with one co-writer); served as curatorial representative on museum marketing team; coordinated long-term plan for changing exhibits gallery and developed related programming; wrote scripts and articles for CHF's podcast and general readership magazine.

Cornell University, Ithaca, N.Y.

Visiting Assistant Professor, Science and Technology Studies

August 2003–June 2004

Conceptualized, researched, wrote, and delivered lectures for two undergraduate lecture courses; researched, designed, and led course activities for two seminar courses of my own design; assessed student work; supervised teaching assistants; directed undergraduate honors thesis and supervised independent projects.

FREELANCE AND PROJECT WORK

Mütter Museum of the College of Physicians of Philadelphia, Philadelphia, Pa.

Guest Curator

August 2010–September 2013

With one co-curator and the museum director, developed interpretive approach and exhibition themes, researched themes and section content, contributed to preparation of two successful grant applications, and advised on exhibition strategy and evaluation for *Broken Bodies, Suffering Spirits*, an 800 square-foot permanent exhibition on the experience of injury, healing, and death in the Civil War.

Guest Curator; Curatorial Researcher and Writer

June 1997–August 2005

Conceptualized, researched, and wrote exhibition script and selected artifacts and images for three permanent exhibitions, including the exhibition which serves as an orientation to the entire museum; worked independently or in close coordination with museum director. Served as curatorial researcher and script writer for full gallery temporary exhibition.

American Philosophical Society Museum, Philadelphia, Pa.*Public Program Developer*

February 2010–September 2011

Designed, researched, scripted, and created web content for *Ghost Gardens and Lost Landscapes*, a historical geocaching program that took participants on a tour of landscapes that no longer exist. Awarded a Heritage Philadelphia Program Independent Scholar grant for this project.

Associate Curator; Research Curator

July 2000–November 2009

Worked with highly collaborative team to lead exhibition research and planning: created research and production plans and schedules; conceptualized exhibition themes; conducted thematic, object, and image research; wrote, edited, and produced introductory texts and object labels; assisted with grant preparation.

EDUCATION

University of Pennsylvania, Philadelphia, Pa.

Ph.D. December 2001; M.A., 1997, History & Sociology of Science

Reed College, Portland, Ore.

B.A., 1994, Biology with a concentration in history

PUBLICATIONS*Peer Reviewed Articles:*

“‘A Track Across What is Now a Desert’: A.H. Munsell’s Quest for a System of Color” in Anne Goodyear and Margaret Weitekamp, eds., *Analyzing Arts and Aesthetics* (Washington, D.C.: Smithsonian Institution Scholarly Press, 2013): 40-55

“‘Here Man Learns About Himself!’ Visual Education and the Rise and Fall of the American Museum of Health,” *American Journal of Public Health* 102, no. 7 (July 2012): e27-e36. (Co-authored with Elizabeth Toon.)

Multimedia Writing:

“The Curious Case of Body Snatching at Lebanon Cemetery,” *Hidden City Philadelphia*, April 2015 (<http://hiddencityphila.org/2015/04/the-curious-case-of-body-snatching-at-lebanon-cemetery/>).

Contributor to National Constitution Center’s *Constitution Daily* blog, 2011-2012. Links available upon request.

Contributor to Chemical Heritage Foundation’s *Distillations* podcast, 2008-2009. Links available upon request.

“A Child’s Garden of Chemistry,” *Chemical Heritage* (26, no.1, 2008): 14-15.

“The Mütter Museum: Education, Preservation, and Commemoration,” *Annals of Internal Medicine* 7, no. 132 (April 4, 2000): 599-603.

PRESENTATIONS

Presented scholarly work at national conferences including the American Association of the History of Medicine, the History of Science Society, and the Medical Museums Association. Presented professional work at meetings of the National Council on Public History, the Mid-Atlantic Association of Liberal Arts Chemistry Teachers, and the Center for Conservation of Arts and Historic Artifacts.

CHARLES McGHEE HASSRICK

(b) (6)

ACADEMIC DEGREES

MASTER OF FINE ARTS	2007
School of the Art Institute of Chicago, Chicago, Illinois – MFA Designed Objects	
MASTER OF URBAN PLANNING	1998
University of Washington School of Urban Design and Planning, Seattle, WA	
INTERNATIONAL POLICY CERTIFICATE	1997
International School of Spatial Policy Studies, Groningen, The Netherlands	
BACHELOR OF ARTS	1991
Bowdoin College, Brunswick, ME – Biology/Classical Languages-Archaeology (<i>Cum Laude</i>)	

SELECTED AWARDS AND HONORS

ASTC LEADING EDGE AWARD – <i>Science Storms</i> Exhibit at MSI (Team)	2011
AAM NAME AWARD FOR OVERALL EXCELLENCE – <i>Science Storms</i> Exhibit at MSI (Team)	2011
AAM GOLD MUSE AWARD – Create a Chemical Reaction Interactive, <i>Science Storms</i> at MSI (Team)	2011
AAM GOLD MUSE AWARD – Fire-Combustion Area of <i>Science Storms</i> at MSI (Team)	2011
AAM EXCELLENCE IN EXHIBITION AWARD: Special Achievement in Cooperative Learning – <i>Skyline</i> Exhibit at the Chicago Children's Museum (Team)	2010
MERIT SCHOLARSHIP – School of the Art Institute of Chicago	2004
PLANNING AWARD – Illinois Chapter of the American Planning Association (Team)	2004
HONOR AWARD – Illinois Chapter of the American Society of Landscape Architects (Team)	2003

PROFESSIONAL EXPERIENCE

DIGITAL PROJECTS MANAGER – Chemical Heritage Foundation, Philadelphia, PA.	2015 - Present
<ul style="list-style-type: none">Manage content development, research, design, evaluation, and fundraising for the Museum's digital initiatives, including –<ul style="list-style-type: none">The Media Column – redesigning the Museum's 18' digital centerpiece from a passive experience to an interactive exhibition about the history of science and materiality.Interactive Air Quality Visualization – coordinating data and research from scientists, historians, advocacy groups, and others to create an interactive, time-based visualization of air quality from around the world.Beckman Online Exhibition/Game – creating an online experience that invites users to explore and experiment with a collection of key 20th century scientific instruments.Age of Alchemy – developing a video game that invites players to investigate symbology, metaphor, and allegory in Medieval alchemy and make connections to modern science.	
SENIOR INTERPRETIVE PLANNER – Thinc Design, New York, NY.	2012 - 2015
<ul style="list-style-type: none">Directed exhibit development for Thinc Design's work on the new Cleveland Museum of Natural History, including galleries on the living planet, wildlife, astronomy and cosmology, Ohio, and early childhood discovery.Developed, wrote, and edited content associated with Climate+Change, a photographic exhibition about human ingenuity and adaptation to the challenges of climate change throughout the Hindu Kush Himalayan region.Lead the research and exhibit development efforts for the Royal Alberta Museum's new natural history galleries, including galleries on evolution, biodiversity, gems and minerals, invertebrates, and ancient landscapes.Collaborated with developers and designers in the creation of the Royal Alberta Museum's human history and children's galleries.	

CHARLES McGHEE HASSRICK

FREELANCE EXHIBIT DEVELOPER – Chicago, IL.

2010 – 2012

- **Magical History Tour** – Conducted content research with Beatles collectors and historians and wrote exhibition copy for this Beatles memorabilia exhibition.
- **Art of Rock and Roll** – Collaborated with a team of other developers, designers, and media professionals to create sensory immersions into the inspirations for iconic rock and roll album covers.
- **MythBusters** – Responsible for exhibit development, creative direction, and copy writing for this traveling exhibit, collaborating with the MythBusters and the Discovery Channel.
- **Illinois Holocaust Museum** – Researched content and tested and developed interactives for the recent redesign of the Make a Difference Gallery.
- **Discovery Park of America** – Worked with Thinc Design to develop and design galleries on Native American history and alternative energy for this 100,000-square foot museum in western Tennessee.
- **Miami Science Museum** – Directed content and exhibit development for this new state-of-the-art science museum and aquarium. Facilitated creative workshops with Museum staff to focus and develop content and experiential concepts for three floors of interactive aquarium galleries and one interactive media-based gallery.
- **Sustainable Design Center** – Developed initial concept proposals and interactive exhibit elements for a hands-on experience of recent trends in residential sustainable design and technology.

SENIOR EXHIBIT DEVELOPER – Museum of Science & Industry, Chicago, IL.

2007 – 2010

- **Science Storms** – Collaborated as a member of the core creative team to design and develop *Science Storms*, a \$38 million, 26,000 square foot exhibit that interprets the physics and chemistry of natural phenomena, including the curation of over 200 historic and contemporary artifacts and the creation of over 50 mechanical and media-based interactives, seven linear media pieces, and supporting graphics and labels.
- **Energy Planet** – Directed creative project team for an evolving, 8,000-square foot exhibit on the future of energy, which uses hands-on and media based interactives, advanced technologies and multi-player simulations.
- Worked directly with MSI's Development Department to raise \$1.8 million for *Energy Planet's* renewable energy exhibits, outdoor energy "garden", high-efficiency lighting retrofit, and interpretive programs.
- Served as an Expert Advisor for the 30,000-square foot museum expansion to the Shanghai Energy Conservation Supervision Center as part of the Shanghai Expo 2010.

INSTRUCTOR – School of the Art Institute of Chicago – Chicago, IL.

2009

- **Digital Sculpture** – Co-instructed this course which links 3D design using Maya, Z-Brush, Rhino, and other modeling software to advanced 2D sculpting and 3D printing technologies, effectively transitioning students from virtual creation to cutting edge fabrication.

EXHIBIT DEVELOPER / PROTOTYPER – Chicago Children's Museum - Chicago, IL.

2004 – 2007

- Developed and tested exhibition concepts for a National Science Foundation funded exhibit, which uses an interactive construction experience to test theories on family learning, educational scaffolding and documentation.

CONSERVATION DESIGNER / PLANNER – Conservation Design Forum - Elmhurst, IL.

2001 – 2004

- Project Manager and creative lead for a variety of sustainable planning, policy and design projects, including:
 - Route 47/Kishwaukee River Corridor Plan** – an award-winning participatory project that included sustainability indicators, GIS impact modeling, and conservation-based land use planning.
 - Blackberry Creek Alternative Futures Analysis** – an award-winning project that designed and compared stormwater impacts of conservation-oriented development to those of conventional design.
 - Menomonee Valley Sustainable Design Guidelines** – worked with the Rocky Mountain Institute and local leaders to develop sustainable guidelines for development in this industrial corridor in downtown Milwaukee.

CITY PLANNER – City of Klamath Falls, Klamath Falls, OR.

1998 - 2001

- Managed and co-directed the 1999 Land Use Alternatives Planning Project, completing visual preference survey, public hearings, GIS-based Draft Land Use Plan Map and Comprehensive Plan Policy Summary.
- Managed the City's Downtown Design Review Commission and the Downtown Urban Redevelopment Advisory Board, and initiated educational programs in historic preservation and downtown real estate.

Elisabeth Berry Drago, PhD

Email: eberrydrago@chemheritage.org

Phone: 215.873.8283

SUMMARY OF QUALIFICATIONS

Art historian with extensive experience in developing engaging, interactive programming for a broad public. Specialist in the Early Modern Netherlands, the history of the print, and the interconnected developments of art and emerging science. Scholarly and popular writing skill-sets, with emphasis on narrative and opening dialogue. Strong commitment to increasing access to arts and culture across boundaries and borders.

EDUCATION

- Ph.D 2016 University of Delaware, Department of Art History
Dissertation: "Thomas Wijck's Painted Alchemists at the Intersection of Art, Science, and Practice"
- MA 2010 Temple University, Department of Art History
Thesis: "The Art and Science of Reading Faces: Physiognomic Theory and Hans Holbein the Younger"
- BA 2004 State University of New York at Fredonia, Visual Arts & New Media (Fine Arts)

SELECTED EXPERIENCE

- 2015-Present Public History Fellow, Chemical Heritage Foundation, Philadelphia PA
- 2014-2015 Museum Curatorial Assistant, Chemical Heritage Foundation, Philadelphia PA
- 2011-2012 Graduate Teaching Assistant, University of Delaware, Newark DE
- 2006-2013 Youth & Adult Studio Faculty, Fleisher Art Memorial, Philadelphia PA
- 2002-2003 Undergraduate Teaching Assistant, State University of New York at Fredonia, Fredonia NY

SELECTED FELLOWSHIPS AND HONORS

- 2015 *Summer Fellow, Doing Digital History, Roy Rosenzweig Center for History and New Media*
George Mason University, Arlington VA
- 2014-2015 *Sewell C. Biggs Dissertation Award, University of Delaware*
- 2013-2014 *Allington Dissertation Fellow, Beckman Center for the History of Chemistry*
Chemical Heritage Foundation, Philadelphia PA
- 2013 *Research Fellow*
Consortium for the History of Science, Technology and Medicine, Philadelphia PA

- 2013 *Summer Fellow*, Delaware Public Humanities Institute (DELPHI)
Center for Material Culture Studies, University of Delaware
- 2012 *Summer Fellow*, Summer Institute in Technical Art History (SITAH)
Conservation Center, Institute of Fine Arts, New York University

PUBLICATIONS

- 2019 (Forthcoming) *Painted Alchemists: Early Modern Artistry and Experiment in the Work of Thomas Wijck*, Amsterdam Studies in the Dutch Golden Age, Amsterdam University Press.
- 2018 (Forthcoming) "Diverse Arts: A Spectrum of Early Modern Representations of Alchemy," in *A Cultural History of Chemistry in the Early Modern Age*, Editor Bruce T. Moran, Bloomsbury Academic.
- 2016 "Rebel Without a Chemistry Set," *Chemical Heritage Magazine*, Spring 2016.
- 2014 "Going to Pieces: A Detective Story," *Chemical Heritage Magazine*, Fall 2014/Winter 2015.
- 2013 "Double Vision: Thomas Wijck's *The Alchemist*," *Chemical Heritage Magazine*, Fall 2013/Winter 2014.
- 2012 "Surface and Substance: Physiognomic Theory and Hans Holbein's 'Pictures of Death,'" *Montage: Journal of the University of Iowa Art History Society*, Issue 6.

CONFERENCES AND SYMPOSIA

- 2018 Historians of Netherlandish Art International Interdisciplinary Conference, Ghent, Belgium
Co-Chair, "Early Modern Netherlandish Art and the Work of Science"
- 2016 University of Delaware: Art History at 50 Symposium, Newark DE
"Artists' Materials at the Interdisciplinary Edge"
- 2015 Making & Knowing Project (Columbia University), Reconstruction Workshop, Philadelphia PA
"A Digital Book: Conservation, Community and Social Media"
- 2014 Historians of Netherlandish Art International Interdisciplinary Conference, Boston MA
"Painting the Laboratory: Alchemical Pigments in the Art of Thomas Wijck"
- 2014 Boston University Annual Graduate Symposium, Boston MA
"Shadowed Spectatorship in the Photographic Nocturne, 1895-1910"
- 2012 University of Iowa Annual Graduate Symposium, Iowa City IA
"Surface and Substance: Physiognomic Theory and Hans Holbein's 'Pictures of Death'"
- 2012 University of Delaware Annual Graduate Student Symposium, Newark DE
"Folk Spirit and German Identity in Moritz von Schwind's *The Rose*"

NICOLE ELIZABETH COOK

The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106-2702
ncook@chemheritage.org

(b) (6)

EDUCATION

-
- Ph.D.**, University of Delaware 2016
- Dissertation: “Godefridus Schalcken (1643-1706): Desire and Intimate Display” (Committee Chair: Dr. H. Perry Chapman)
- M.A.**, Tyler School of Art, Temple University 2010
- Thesis: “The First of Brave Men: Antiquity, Myth, and Masculinity in Hans Baldung Grien’s *Hercules and Antaeus*” (Thesis Advisors: Dr. Ashley West and Dr. Tracy Cooper)
- B.F.A.**, Moore College of Art & Design 2007
- Valedictorian: Double Major in Art History and 2-D Fine Arts (Painting and Printmaking)

OTHER PROFESSIONAL TRAINING

-
- “Presenting and Researching Seventeenth-Century Dutch Art and History”** Summer 2013
Amsterdam-Maastricht Summer University (co-hosted by the Rijksmuseum, RKD, and CODART)
- Folger Institute at the Folger Shakespeare Library, Washington D.C.** Fall 2012
Semester Seminar with Dr. Mario DiGangi (CUNY): “Sexuality, Theory, History, Drama”

CURATORIAL/MUSEUM EXPERIENCE

-
- Fine Art Researcher**, The Chemical Heritage Foundation, Philadelphia August 2016–Present
- Collections Project Coordinator** (part-time), The Clay Studio, Philadelphia August 2016–August 2017
- Position and project funded by the Luce Foundation for American Art.
- The Leiden Collection, New York 2014–2016
- Curatorial and Collections Management Assistant**, January 2015–August 2016
 - Curatorial Research Fellow**, July–December 2014
- Spotlight Gallery Conversations Lecturer**, Philadelphia Museum of Art Fall 2014–Spring 2015
- Art Collection Intern**, Blank Rome LLP, Philadelphia 2008–2010

TEACHING EXPERIENCE (SELECTED)

-
- Invited Speaker**, Rowan University, Department of TV, Radio, and Film, “Horror Films” Spring 2017
- Instructor**, Rutgers, The State University of New Jersey, Department of American Studies Fall 2014
- Teaching Assistant**, University of Delaware, Department of Art History 2011–2014
- Teaching Artist**, Philadelphia Arts in Education Partnership Summer Program Summer 2011

AWARDS, GRANTS AND FELLOWSHIPS

-
- Sewell C. Biggs Dissertation Writing Award in Art History and Preservation Studies 2016
- University of Delaware Graduate & Professional Education Professional Development Award 2015
- Anna R. and Robert T. Silver Award for Excellence in Teaching, University of Delaware 2014
- University of Delaware Competitive University Fellowship 2013–2014
- Delaware Public Humanities Institute (DELPHI) Summer Fellowship 2013
- Grant-in-Aid, Folger Institute at the Folger Shakespeare Library 2012

PUBLICATIONS

In Progress

Nocturnal Visual Culture in the Dutch Golden Age: Godefridus Schalcken and the Rise of Candlelight Painting (Amsterdam: Amsterdam University Press, expected 2018-19).

Chapters and Essays

“Eros, Intimität und Begehren in den Genrebildern von Godefridus Schalcken.” In *Schalcken: Gemalte Verführung [Schalcken: Painted Seduction]*. Edited by Anja Sevcik. Exh. cat., Cologne, Wallraf-Richartz Museum. Stuttgart, 2015, 72-85.

“Eine alte Frau und ein junger Mann füttern einen Papagei,” In *Schalcken: Gemalte Verführung [Schalcken: Painted Seduction]*. Edited by Anja Sevcik. Exh. cat., Cologne, Wallraf-Richartz Museum. Stuttgart, 2015, 151-54.

Book Reviews

Review of *Genre Imagery in Early Modern Northern Europe: New Perspectives*, ed. Arthur DiFuria (Routledge/Ashgate, 2016), in *Historians of Netherlandish Art Review of Books*, November 2016 (http://www.hnanews.org/hna/bookreview/current/16_Genre-Imagery1016.html).

LECTURES AND PAPERS (SELECTED)

“The Brush and The Candle: Nocturnal Viewing in Godefridus Schalcken’s Late Self-Portraits,”-Session: “Before the Selfie,” College Art Association, Washington D.C., 5 February 2016.

“From Amoris Causa to Pygmalion's Creative Dream – Godefridus Schalcken and Theories of Love and Art,” International Conference, *Schalcken – Painted Seduction*, Wallraf-Richartz-Museum & Fondation Corboud, Cologne. 22 January 2016.

“Godefridus Schalcken’s Seduction of the Beholder: Privileging the spectator’s gaze in late seventeenth-century art,” Arbeitskreis Niederländische Kunst- und Kulturgeschichte (ANKK) Conference, Bonn. 2 October 2015.

“Godfried Schalcken’s Nocturnes: The Aesthetics and Erotics of Night in Seventeenth-Century Painting,” 20th Annual Graduate Student Symposium on the History of Art, Philadelphia Museum of Art. 11 April 2015.

“Schalcken Plays Himself: Erotic Fantasy, Voyeurism, and the Artist's Studio,” Sixteenth Century Society Conference, New Orleans. 18 October 2014.

“Illuminating Defacement: Graffiti in Pieter Saenredam’s *Nave of the Buurkerk, Utrecht, from north to south*,” Princeton University Art History & Archeology Graduate Student Conference. 9 April 2011.

SYMPOSIA AND PANELS

Panel co-organizer with Elisabeth Berry Drago, “Early Modern Netherlandish Art and the Work of Science,” Historians of Netherlandish Art Conference (forthcoming, Ghent, May 2018).

Panel co-organizer with Sara Bordeaux, “Early Modern Netherlandish Artists and Their Money,” The Sixteenth Century Society Conference, Bruges, August 2016.

PUBLIC TALKS

“Looking at Beauty and Seduction in Late Dutch Baroque Art,” Osher Lifelong Learning Institute, University of Delaware. 12 March 2014.

PROFESSIONAL SERVICE

Vetting Committee , Material Culture Symposium for Emerging Scholars, U. of Delaware	2013–2014
Conference volunteer , Renaissance Society of America annual meeting	2012 & 2014
Co-Chair , University of Delaware Art History Graduate Student Lecture Series	2011–2012
Co-President , Tyler School of Art Graduate Art History Student Organization	2009
Secretary and Nominations Chair , Moore College of Art & Design Alumnae Board	2007–2010

LANGUAGES

Dutch, French, and German (advanced reading and intermediate speaking skills)

KATE HALEY GOLDMAN

(b) (6)

Kate@HaleyGoldman.com

HALEY GOLDMAN CONSULTING, PRINCIPAL

2015- Present

Kate Haley Goldman is a researcher and evaluator. In the 20 years she has been in the field, she has conducted a wide-range of informal learning studies, often with a concentration on technology and the informal learner. She has directed projects both in the US and abroad, including mobile phones, multimedia installations, websites, gaming, augmented and mixed reality, and online learning.

AUDIENCE VIEWPOINTS CONSULTING, PRINCIPAL

2012-2015

DIRECTOR OF LEARNING RESEARCH AND EVALUATION, National Center for Interactive Learning at the Space Science Institute

2010-2012

SENIOR RESEARCH ASSOCIATE, Institute for Learning Innovation

2000-2010

SELECTED RECENT PROJECTS:

Lower East Side Tenement Museum, Digital Storytelling in Museums: A NEH-funded community of practice of museum educators, curators, and digital designers examining current affordances and obstacles in museum digital practices. <http://digitalstorytellingtenement.weebly.com/eval.html> (2016-Present)

Canadian Museum of Human Rights, Institutional Integrated Analytics: A whole-institution strategic planning effort to document data sources around the museum, identify gaps in indicators and information the museum is unable to analyze. Once the gaps were identified, we conducted workshops with leadership and stakeholders to prioritize objectives and align with key indicators. From those workshops, we developed a Strategic Roadmap detailing the information needed to monitor key indicators and the evaluation studies and staff capacity-building needed to carry out that system. (2015-2016)

Museum of Science Boston, Creating Museum Multimedia for Everyone: This benchmark NSF grant has produced universally-design multimedia prototypes, through a combination of design sprint, persona development, and iterative testing with visually impaired visitors. The goal was to design both process and prototypes for making traditionally inaccessible museum multimedia into content-rich experiences for a much broader public. (2012-2014)

Minnesota Historical Society, Play the Past iTouch game: A mobile role-playing game developed at the Minnesota Historical Society, the mobile devices make use of using QR codes to keep students engaging with the exhibit. Currently school-group based, this product is designed to inspire collaboration and critical thinking through historic context such as a Sod House, an Iron Mine, and a Trading Post. We studied impact of the game on how students related to the experiences from that time period. (2013-2014)

Co-PI of Open Exhibits (DRL-1010028; OpenExhibits.org) Directed applied research in this NSF grant to develop open-source modules for multi-touch tables. (2010-2014)

SELECTED CONFERENCE PRESENTATIONS:

- *Experiencing the Visitor Experience*, Museum Computer Network Workshop, November 2015 & 2016
- *Piloting and Implementing (Digital) Gallery Interpretation*, Museum Computer Network, November 2014
- *Nimble Evaluation (Evaluation 2.0)*, Visitor Studies Conference, July 2013
- *Gamification, Games and Museums*, American Affiliation of Museums, May 2013
- *Evaluating Games*, Museums and the Web, April 2012
- Invited Presentation: *Museums, Mobiles and Social Media*, Rutgers University, April 2010.
- *Evaluation Methods for Web 2.0*, Museums and the Web April 2009;
- Invited workshop: Learning in Museums 2008: *Technology, Interpretation and Learning in Museums. Evaluating Educational Technology*.
- *Web-Based Surveys: Pros and Cons*, Visitor Studies Annual Conference, August 2005
- Invited Speaker for International Workshop, Munich, Germany. *User or science oriented? On-line educational tools offered by science museums. Theoretical basics, methodical problems, practical examples*, April 2005
- *Exploring Motivational Factors and Visitor Satisfaction in On-line Museum Visits*, Museum and the Web Annual Conference, March- April 2004
- *Form and Function: Museums & Usability Strategies*, Museum Computer Network Annual Meeting, September 2002
- *What happens when there are too many visitors?* American Association of Museums Annual Meeting, May 1999
-

SELECTED PUBLICATIONS

- Schaller, D., & Haley Goldman, K. (2011). The Player's Voice - Using Evaluation to Bring the Player into the Development Process. In K. Beale (Ed.), *At Play: Games, Interaction and Learning*. Museums Etc: New York, New York.
- Haley Goldman, K. (2011) Understanding Adoption of Mobile Technology within Museums. In N. Proctor (Ed.), *Mobile Apps for Museums The AAM Guide to Planning and Strategy*. The AAM Press: Washington D.C.
- Katz, J., Haley Goldman, K., & Foutz, S.; (2010). Audience, Expectations, and Alignment. In J. Katz, W. Labar & E. Lynch (Eds.), *Creativity and Technology: Social Media, Mobiles & Museums*. Museums Etc: New York, New York
- Ellenbogen, K., Falk, J. & Haley Goldman, K. (2008). Understanding the Intersection of Museum Audience Motivations and Technology. In *Museum Informatics: People, Information, and Technology in Museums*. New York: Taylor & Francis.
- Haley Goldman, K. & Dierking, L. (2005). Setting a Course for Research in the Virtual Science Center. In L. Tan & R. Subramaniam (Eds.), *E-learning and the Virtual Science Center*. Idea Press: Hershey, PA.

EDUCATION:

Graduate work in Measurement, Statistics & Evaluation, College of Education, University of Maryland

B.S. in Anthropology from Bryn Mawr College 1993

Koobi Fora Field School / Harvard University, Nairobi, Kenya Summer 1992



May 18, 2017

Charles McGhee Hassrick
Digital Projects Manager
Chemical Heritage Foundation
315 Chestnut Street, Philadelphia, PA 19106

Dear Charles--

I am so pleased to write you this letter to confirm my commitment as advisor and evaluation consultant for your NEH prototype proposal submission for the *Age of Alchemy*, a historical role-playing puzzle. The game centers on a central concept of historians of science, medicine, and technology: how alchemy has had a significant impact on the larger cultural history, not just in Europe and United States, but thorough the world. Practiced by royalty, and peasants alike, the practice of alchemy fostered and supported the development of the enlightenment. Working with your project team, including partners: Drexel University, partners, Gossamer Games, and the advisory board, and the superb historical content and objects from the Chemical Heritage Foundation, I will be supervising evaluation throughout the course of the project, including both formative and summative evaluation. Specifically, the evaluation will provide iterative usability feedback for the further development of the *Age of Alchemy* to ensure this complex narrative puzzle game is playable, absorbing, and informative.

The humanities content and game structure of *Age of Alchemy* provides an ideal medium for demonstrating how game interaction can promote deeper understanding of the history of human culture. I have been evaluating museum technology for over twenty years, and I will be delighted to lend my expertise to this endeavor.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kate Haley Goldman".

Kate Haley Goldman
Haley Goldman Consulting
HaleyGoldman.com

CURRICULUM VITAE

DONNA BILAK

(t) (b) (6) (e) dab2208@columbia.edu (w) dbilakpraxis.com

Office: Columbia University - B206 The Heyman Center for the Humanities - 2960 Broadway MC: 5730 - New York NY 10027

Home: (b) (6)

Education

- 2003 – 2013 PhD, Cultural History
Bard Graduate Center: Decorative Arts, Design History, Material Culture – New York, USA
Dissertation: “The Chymical Cleric: John Allin, Puritan Alchemist in England and America (1623-1683).”
Supervisor: Peter N. Miller - External Examiner: Mordechai Feingold - Degree Conferred May 2014
- 2008 MPhil, Cultural History
Bard Graduate Center: Decorative Arts, Design History, Material Culture – New York, USA
Degree Conferred: May 2008
- 2002 – 2003 MA, History
York University – Toronto, Canada
Major Research Paper: “The Emergence of Botany and the Knowledge of Plants: Nature and Creation in the Sixteenth Century.”
Supervisor: Richard C. Hoffmann - Second Reader: Thomas V. Cohen - Degree Conferred May 2004
- 2001 – 2002 Special Student, Masters Programme History
York University – Toronto, Canada
- 1991 – 1994 Jewellery Arts Diploma
George Brown College of Applied Arts and Technology – Toronto, Canada
Gold- and Metalsmithing, Gemmology, Metallurgy, Enamelling, Jewellery Design - Degree Conferred May 1994

Employment

- 2017 – 2018 The Italian Academy for Advanced Studies Fellow – Columbia University
- 2014 – 2017 History of Science and Technology Postdoctoral Fellow, “The Making and Knowing Project” – Columbia University, Department of History
- 2013 – 2014 Edelstein Postdoctoral Fellow – Chemical Heritage Foundation
- 2001 – 2017 Antique Jewelry and Art Conference (New York) – Jewelry industry educator for history of jewelry design and technology
- 2001 – 2008 Royal Ontario Museum (Toronto) – ROMLife Public Lecture Series Course Director and ROMLife Program Co-ordinator
- 1994 – 2000 Jewelry Industry Production (Toronto) – Freelance designer; wax model maker; private commissions.
1998-1999 jewelry designer for Design Model Services/DMS Group (firm specializing in wax jewelry models and designs for international gold, platinum, and gemstone jewelry manufacturers); 1997-1998 provided jewelry designs, wax jewelry models, and retail services at Secrett Jewel Salon; 1996-1997 created and produced jewelry designs and wax jewelry models for Dianna Rhodes Accessories (firm specializing in electroformed jewelry).

Fellowships

- 2017 – 2019 Visiting Scholar – Brown University, History Department
- Two-year appointment renewed annually in support for the development of “Project Atalanta,” the digital edition of *Atalanta fugiens* (1618) based on Dr. Bilak’s research and funded by the Andrew W. Mellon Digital Scholarship Initiative.
- 2017 – 2018 The Italian Academy for Advanced Studies, “Catch Me If You Can”: Ludic Humanism and Michael Maier’s *Atalanta fugiens* (1618)” – Columbia University
- 2014 – 2017 History of Science and Technology Postdoctoral Fellow, “The Making and Knowing Project” – Columbia University, Department of History
- 2013 – 2014 Edelstein Postdoctoral Fellow, “The Allegorical Laboratory: Michael Maier’s Alchemical Emblem Book *Atalanta fugiens* (1618)” – Chemical Heritage Foundation
- 2013 Dibner Research Fellow in the History of Science and Technology, “The Sight and Sound of Early Modern Alchemy: Michael Maier’s *Atalanta fugiens* (1618)” – The Huntington Library
- 2012 Visiting Scholar, Department of Cultural Studies – National University of Kyiv-Mohyla Academy, Ukraine
- Course Director (MA seminar): “Cultural History of Computers and Information Technology.”
 - Workshop Director (PhD students): “Doing History in the Digital Age: Research, Methodology, Interpretation.”

Grants and Awards

- 2016 Andrew W. Mellon Digital Scholarship Initiative – Brown University
- Awarded for “Project Atalanta,” the development and publication of a multimedia digital edition of an alchemical emblem book set to music, *Atalanta fugiens* (1618) at Brown University. Co-edited with Tara Nummedal (Brown, History Department) and in collaboration with musicologist Dr. Robin Bier (Director, solo-voice ensemble Les Canards Chantants) and Dr. Loren Ludwig (Director, LesStrange Viols).
- 2015 Betty Irene Moore Library Fund – Chemical Heritage Foundation
- Awarded to fund the workshop, “Interplay: Rethinking Music, Mathematics, and Alchemical Praxis in the *Atalanta fugiens* (1618).”
- 2014 American Members of CINO Award for Outstanding Dissertation – Bard Graduate Center (BGC)
- Awarded for “The Chymical Cleric: John Allin, Puritan Alchemist in England and America (1623-1683).”
- 2012 Canadian Institute of Ukrainian Studies, Stelmashuk Extension Education Endowment Fund – University of Alberta
- 2011 – 2012 Bard Graduate Center Dissertation Writing Up Award
- 2010 – 2011 Bard Graduate Center 4th Year Dissertation Writing Award
- 2003 – 2008 Bard Graduate Center Fellowship

Publications (select)

- Peer Reviewed Article: “The Making and Knowing Project: Reflections, Methods, and New Directions.” Co-authored with Pamela H. Smith, Joel Klein, and Jenny Boulboulle.
West 86th: A Journal of Decorative Arts, Design History, and Material Culture, Vol. 23, No.1 (2016): 35-55.
- Entry: “Allin, John (1623-1683), non-conformist minister and alchemist.”
Oxford Dictionary of National Biography. Published September 2014.
- Article: “Alchemy and the End Times: Revelations from the Laboratory and Library of John Allin, Puritan Alchemist (1623-1683).”
Ambix: The Journal of the Society for the History of Alchemy and Chemistry, Vol. 60, No.4 (November 2013): 390-414. Special Issue, “Alchemy and Religion in Christian Europe.”
- Book Proposal “*Alchemy in Code*”: A critical digital edition of Michael Maier’s *Atalanta fugiens* (1618) with scholarly commentary. Co-edited with Tara Nummedal. University of Chicago Press (under review). Projected Completion: 2019.

CHF Workshops and Museum Outreach

- 2015 Oct – 2016 May Workshop Director: “Material Conversations: Matter and Methodology in History of Science Research and Pedagogy”
- Initiated, designed, organized and moderated a monthly discussion group that convened fellows from CHF’s Beckman Center and Institute for Research with representatives from CHF’s museum and library to engage in debate and exploration around the methodology of material culture in history of science projects and practices. Workshops included handling sessions with objects and instruments from CHF’s museum collections and library sessions with archival and rare book materials to advance material literacy among CHF fellows.
- 2015 Mar Workshop Director: “Interplay: Rethinking Music, Mathematics, and Alchemical Praxis in the *Atalanta fugiens* (1618)”
- Two-day international multi-disciplinary workshop sponsored by the Chemical Heritage Foundation that convened twenty international scholars from musicology, mathematics, classics, religious studies, and history of science together with rare book curators to probe and explore Donna Bilak’s research about Michael Maier’s alchemical emblem book *Atalanta fugiens* as a text to be read, performed, and used as a game based on its hidden mathematical elements.
 - Initiated, designed and co-organized with Ronald Brashear (Arnold Thackray Director of the Othmer Library and Director of the Beckman Center), presented in collaboration with Dr. Robin Bier and Les Canards Chantants.
- 2015 Apr Event: “The Alchemist’s Cookbook.” CHF First Friday Event Co-ordinator, co-presented with Ryan Whibbs, Professor, Culinary Arts School at George Brown College of Applied Arts and Technology. Presented in conjunction with the CHF feature exhibit *Books of Secrets: Writing and Reading Alchemy*.
- 2014 Apr Event: “Night at the Alchemical Laboratory.” CHF First Friday Event Co-ordinator, co-presented with Elisabeth Berry Drago, CHF Fellow.

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK
DEPARTMENT OF HISTORY

Donna Bilak, PhD
Lecturer in History, Department of History
Columbia-CHF Scholar-The Making and Knowing Project
Columbia University
The Heyman Center for the Humanities
2960 Broadway MC: 5730
New York, NY 10027

Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

22 May 2017

Dear Dr. McLeary,

I am pleased to commit to an advisory relationship with The Chemical Heritage Foundation (CHF) for their *Age of Alchemy* Game Project and in support of their application for a Digital Projects for the Public Prototyping grant from the National Endowment for the Humanities (NEH). This project will be a valuable contribution to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern alchemy and science for broader public audiences.

I began my relationship with CHF in 2013-2014 when I was the Edelstein Postdoctoral Fellow for my research project, "The Allegorical Laboratory: Michael Maier's Alchemical Emblem Book *Atalanta fugiens* (1618)." My research shows that Maier's philosophico-alchemical program in *Atalanta fugiens* conceals a mathematical puzzle that is revealed to the erudite reader upon detecting clues embedded in its music, images, and text, transforming its reading experience into an interactive game predicated on the reader's use of imagination. My research as a CHF Fellow was advanced through a two-day international multi-disciplinary workshop sponsored by the Chemical Heritage Foundation in March 2015, "Interplay: Rethinking Music, Mathematics, and Alchemical Praxis in the *Atalanta fugiens* (1618)." This workshop was co-organized by Ronald Brashear, and convened twenty international scholars from musicology, mathematics, classics, religious studies, and history of science together with rare book curators to probe and explore my research on *Atalanta fugiens*.

Since then, I have received a 2017-18 Fellowship at The Italian Academy for Advanced Studies (Columbia University) to continue my research on *Atalanta fugiens*. In addition

to this, I am also co-editing with Tara Nummedal (Brown University) a critical digital edition of the book with a set of integrated scholarly essays; this collaborative project involves experts from music, mathematics, digital humanities, and the histories of science and the book, and is supported by the Mellon-funded Digital Publishing Initiative at Brown University.

My collaborative work with CHF continued through 2014-17, when I was the Columbia-CHF Scholar on The Making and Knowing Project at Columbia University, a five-year initiative under the direction of Pamela H. Smith to create an open-access critical digital edition and English translation of a late sixteenth-century French manuscript compilation of artisanal recipes of a proto-scientific nature, held by the Bibliothèque nationale de France (BnF Ms. Fr. 640). During this period, my role at CHF included collaborating on such museum public outreach First Friday programs as: “The Alchemist’s Cookbook” (April 2015) co-presented with Ryan Whibbs (Professor, Culinary Arts School at George Brown College of Applied Arts and Technology), and presented in conjunction with the CHF feature exhibit *Books of Secrets: Writing and Reading Alchemy*; and “Night at the Alchemical Laboratory” (April 2014), co-presented with Elisabeth Berry Drago, CHF Fellow.

From October 2015 to May 2016, I also led a monthly discussion group at CHF, “Material Conversations: Matter and Methodology in History of Science Research and Pedagogy,” which convened fellows from CHF’s Beckman Center and Institute for Research with representatives from CHF’s museum and library to engage in debate and exploration around the methodology of material culture in history of science projects and practices. This reading group included handling sessions with objects and instruments from CHF’s museum collections and library sessions with archival and rare book materials to advance material literacy among CHF fellows.

In closing, please accept this letter as proof of my intent to serve as a humanities advisor for CHF’s *Age of Alchemy* Game Project. I am looking forward to fulfilling my capacity as an advisor, should your NEH application be accepted.

Sincerely,

A handwritten signature in blue ink, appearing to read 'DBK', with a small dot at the end.

Donna Bilak, PhD

Lloyd DeWitt

(b) (6)
• h (b) (6) w 757 965 2048 m (b) (6) • ldewitt@chrysler.org

EMPLOYMENT

IRENE LEACH CURATOR OF EUROPEAN ART AND CHIEF CURATOR 2016-PRESENT
CHRYSLER MUSEUM OF ART, NORFOLK VA

Exhibitions : • *The Agrarian Ideal*, October 2016 – January 2017
• *The Paris of Toulouse-Lautrec* March – June 2017

CURATOR OF EUROPEAN ART 2011- 2016

ART GALLERY OF ONTARIO, TORONTO, CANADA

Exhibitions: • *Vilhelm Hammershøi: Painter of Light and Silence*, April 15– July 3, 2016
• *J. M. W. Turner: Painting Set Free*, October 31, 2015- January 30, 2016
• *Michelangelo: Quest for Genius*, October 17, 2014 – January 11, 2015
• AGO Kids' Gallery installations December 2013 – December 2016

Spearheaded deaccessioning initiative and policy revision. Acting Curator of African and Oceanic Art and Manager of AGO Library and Archives with staff of four librarians and archivist

ASSOCIATE CURATOR, JOHN G. JOHNSON COLLECTION 2003-2011
CURATOR OF DUTCH AND FLEMISH PAINTINGS BEFORE 1900
PHILADELPHIA MUSEUM OF ART

Exhibitions • *Dutch Treat: Ten Paintings by Gerrit Dou*, November 2011 – December 2011
• *Rembrandt and the Face of Jesus*, August 2011 – October 2011
• *Jacob van Ruisdael, Dutch Master of Landscape*, 2005-2006

VISITING PROFESSOR 2009
UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA

MUSEUM FELLOW, DEPARTMENT OF ART HISTORY AND ARCHAEOLOGY 2002-2003
UNIVERSITY OF MARYLAND, COLLEGE PARK
• curated Dutch paintings in 2004 exhibition *Manet and the Sea*

ADJUNCT INSTRUCTOR 2001-2002
URSINUS COLLEGE, COLLEGEVILLE, PA

PRICE FELLOW 2001-2002
CHEMICAL HERITAGE FOUNDATION, PHILADELPHIA

ADJUNCT INSTRUCTOR 2000-2001
LASALLE UNIVERSITY, PHILADELPHIA

EDUCATION

CERTIFICATE PROGRAM IN NON-PROFIT MANAGEMENT 2012- PRESENT
CHANG SCHOOL, RYERSON UNIVERSITY, TORONTO

PHD, ART HISTORY, UNIVERSITY OF MARYLAND, COLLEGE PARK	1996-2006
Dissertation: <i>Evolution and Ambition in the Career of Jan Lievens 1607-1674</i>	
MA, ART HISTORY, UNIVERSITY OF MASSACHUSETTS, AMHERST	1991-1993
Major Area: Northern Renaissance and Baroque Art • Minor Area: Italian Renaissance and Baroque Art	
BA, HONOURS, FINE ART	1986-1990
UNIVERSITY OF GUELPH, ONTARIO, CANADA	

SELECTED PUBLICATIONS

“A Newly discovered *Head of John the Baptist* by Rembrandt’s Studio,” *Rembrandt and his Circle: Insights and Discoveries*, ed. Stephanie Dickey, Amsterdam: Amsterdam University Press, forthcoming (2017)

“From Italy to Holland: Caravaggio’s Darkness and Light come North,” *Illuminations: Italian Baroque Paintings in Canadian Collections*. Exh. Cat. Hamilton: Art Gallery of Hamilton, 2015

“‘They leave us as they find us, they never elevate,’ John G. Johnson and the Dutch Masters,” *Holland’s Golden Age in America: Collecting the Art of Rembrandt, Vermeer and Hals. Symposium Papers presented at the Center for the History of Collecting in America*. New York: Frick Collection, 2014

“The Heads of Christ, a Technical Survey,” with Mark Tucker and Ken Sutherland, and “Testing Tradition against Nature: Rembrandt’s Radical new Image of Jesus,” in *Rembrandt and the Face of Jesus*. ed. Lloyd DeWitt. Exh. Cat. Philadelphia: Philadelphia Museum of Art, 2011

“The Guiding Illusions of the Morrison Triptych,” with Mark Tucker in *Push me Pull you: Art and Devotional interaction in Medieval and Early Modern Europe*. eds. Laura Gelfand and Sarah Blick. Leiden: E. J. Brill, 2011

“Personality as the key to the career of Jan Lievens,” and catalogue entries in *Jan Lievens: A Dutch master rediscovered*. ed. Arthur K. Wheelock. Exh. Cat. Washington, D.C.: National Gallery of Art, 2008

“Manet and the Dutch Marine Tradition,” *Manet and the Sea*. ed. Joseph Rishel. Exh. Cat. Philadelphia: Philadelphia Museum of Art, 2004

Transmutations: Alchemy in Art, Selections from the Eddleman and Fisher Collections at the Chemical Heritage Foundation, with Lawrence Principe. Philadelphia: Chemical Heritage Foundation, 2002

AWARDS

University of Pennsylvania, Penn Humanities Forum Regional Fellow, 2008-2009

National Endowment for the Humanities, Exhibition Planning Grant for *Fortune and Folly: Alchemy in Northern European Art*, in collaboration with the Chemical Heritage Foundation, 2007

Samuel H. Kress Foundation, Travel Fellowship in the History of Art, 2003



Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

June 2, 2017

Dear Dr. McLeary,

I am pleased to commit to an advisory relationship with The Chemical Heritage Foundation (CHF) under the *Age of Alchemy* Game Project, in support of your application for a Digital Projects for the Public Prototyping Grant from the National Endowment for the Humanities. This project will be a valuable contribution to CHF's continuing efforts to interpret their significant holdings of artworks and manuscripts related to the history of early modern alchemy and science for broader public audiences.

I began my relationship with CHF in 2001-2002 when I served as the Charles C. Price Fellow, a joint curatorial fellowship shared between CHF and The Philadelphia Museum of Art. At that time, CHF had newly acquired the Eddleman and Fisher collections of early modern paintings portraying alchemists and early scientists and I undertook a comprehensive research campaign of the collections. I also collaborated with Lawrence Principe, Professor in the Department of Science and Technology at John Hopkins University, on a catalogue of selected works in the collection titled *Transmutations: Alchemy in Art*, which was published in 2002 and supported by The Samuel H. Kress Foundation and the Fisher Found of The Pittsburgh Foundation. Through these experiences, I gained deep insight into the CHF collections and I am excited to revisit their potential as teaching tools for public audiences.

In closing, please accept this letter as proof of my intent to serve as a humanities advisor for CHF's *Age of Alchemy* Game Project. I am looking forward to fulfilling my capacity as an advisor, should your NEH application be accepted.

Sincerely,

Dr. Lloyd DeWitt
Chief Curator and Irene Leache Curator of European Art
ldewitt@chrysler.org
757 965 2048

ONE MEMORIAL PLACE
NORFOLK, VA 23510

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Michelle DiMeo, Ph.D.

Director of Digital Library Initiatives

Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

Phone: 215-873-8214
Email: mdimeo@chemheritage.org

RELEVANT EMPLOYMENT

Director of Digital Library Initiatives, Othmer Library of Chemical History (July 2016 – Present)
Curator of Digital Collections, Othmer Library of Chemical History (Sep. 2014 – June 2016)
Chemical Heritage Foundation, Philadelphia, PA.

- Overseeing installation of first institution-wide DAMS and digital repository using Hydra Repository
- Created and managing a Digital Collections team of 5 staff members: Applications Developers, Metadata Librarian, Systems Administrator, Collections Photographer
- Wrote policies to provide strategy for, and to sustain the management of, digital assets from CHF's diverse collections
- Provided technical guidance and managed budget for installation of 2D and 3D object photography studios

S. Gordon Castigliano Director of Digital Library Initiatives, Historical Medical Library
The College of Physicians of Philadelphia, Philadelphia, PA. (Sep. 2012 - Sep. 2014)

- Initiated creation of College of Physicians of Philadelphia's Digital Library: www.cppdigitallibrary.org (Curated the selection of nearly 1,000 images and exhibitions using Omeka)
- Served as the College's representative on the Medical Heritage Library's Governance Group
- Created and managed digital library internship program: supervised 1-3 interns every semester
- Negotiated and managed contracts with Internet Archive and HathiTrust to ingest digitized content

Marion L. Brittain Post-doctoral Fellow, School of Literature, Communication and Culture
Georgia Institute of Technology, Atlanta, GA (Aug. 2011 - Aug. 2012)

- Completed post-doctoral courses in "Digital Pedagogy" and "Technical Communication"
- Taught 3/3 load per semester of the 300-level course "Technical Communication." Topics included Web Design, Information Architecture, Usability Testing, and Plain Language

Graduate Programme Coordinator for M.A. in Historical and Sustainable Architecture
NYU in London, London, England. (Aug. 2010 - Aug. 2011)

- Pioneered first year of M.A. as only NYU staff member permanently located in London
- Supervised 8 part-time faculty members and mentored 12 graduate students
- Assisted in curriculum development and strategic planning for 2012-13 academic year

EDUCATION

Certificate in Curation & Management of Digital Assets, University of Maryland. (2015 - 2016)

Ph.D. in English and History, University of Warwick, UK. (2005 - 2010)
Dissertation: "Katherine Jones, Lady Ranelagh: Science & Medicine in a 17th-Century Englishwoman's Writing"

M.A. in English, University of Warwick, UK. **Graduated with Distinction (Honors)**. (2004 - 2005)
Concentration: Renaissance and Seventeenth-Century Studies

B.A. in English, Roosevelt University, Chicago, IL. **University & Departmental Honors** (1998 - 2002)

SELECT FELLOWSHIPS

Folger Shakespeare Library, Short-Term Research Fellowship	Summer 2016
University of Maryland, Tuition waiver for inaugural year of CMDA Certificate (UMD tuition funding provided through an IMLS Laura Bush 21 st Century grant)	2015-2016
Warwick Postgraduate Research Fellowship, University of Warwick	2006-2008
Making Publics 1500-1700 (MaPs) Summer Seminar Fellow, McGill University	Summer 2007

SELECT GRANTS AND AWARDS

- IMLS Sparks! Grant for Libraries Award, \$23,513 for “Local Caching for External Linked Data Authorities in Hydra”. (2017) SP-02-16-0014-16.
- Medical Library Project Award, \$15,000 for “Emerging Roles for Historical Medical Libraries: Value in the Digital Age” from NN/LM Middle Atlantic Region. (2013-2014).
- NEH Humanities Collections and Reference Resources Award, \$195,430 for “Expanding the Medical Heritage Library” with sub-recipients Cushing & Whitney Medical Library of Yale University and Columbia University Libraries (2012-2014). PW-51014-12.
- US/Warwick Interchange Annual Conference Award, £5,000 from American Study and Student Exchange Committee, University of Warwick (2007)

SELECT RECENT PUBLICATIONS

“Communicating Medical Recipes: Robert Boyle’s Genre and Rhetorical Strategies for Print” in *The Palgrave Handbook of Early Modern Literature and Science*, eds. Howard Marchitello and Evelyn Tribble (Palgrave, 2017), pp. 209-228.

(co-editor with Jeffrey Reznick) “Emerging Roles for Historical Medical Libraries: Value in the Digital Age” Special Issue of *RBM: A Journal of Rare Books, Manuscripts and Cultural Heritage*, 15.2 (Nov. 2014)

“Lady Ranelagh’s Book of Kitchen Physick?: Reattributing Authorship for Wellcome MS 1340”. *Huntington Library Quarterly*, 77.3 (Autumn 2014), 331-46.

SELECT CONFERENCE PRESENTATIONS

“Digital Collection Development: Moving from Short-Term Solutions to Long-Term Strategies” at *Building Philadelphia-Area Digital Collections*. PACSCL, University of Pennsylvania. Philadelphia, PA. January 2016.

Chair of panel “Big Data and the Medical Humanities” at *American Association for the History of Medicine Annual Convention*. Yale University. New Haven, CT. April 2015.

“Early Modern Recipe Books in the History of Medicine Classroom: Possibilities and Limitations of Digital Surrogates” at *Women’s History in the Digital World*. Bryn Mawr College. Philadelphia, PA. Forthcoming: May 2015.

“Updates on the Medical Heritage Library” at *Archivists and Librarians in the History of the Health Sciences Annual Meeting*. American College of Surgeons. Chicago, IL. May 2014.

SERVICE AND CONSULTING

- Member of the Technology Committee for the History of Science Society (2016-Present)
- Governance Group Member (2012-2014) and Scholarly Advisory Committee Member (2014-Present). Medical Heritage Library. www.medicalheritage.org
- Advisor. “History of Medicine in 50 Objects” web exhibition by the Mütter Museum (2014-2016)
- Member of Review Panel. National Endowment for the Humanities (NEH), Division of Preservation and Access, panel for “History of Science, Medicine and Technology” sub-set of Humanities Collections and References Resources program (2013)



Chemical Heritage Foundation
LIBRARY • MUSEUM • CENTER FOR SCHOLARS

315 Chestnut Street | Philadelphia PA 19106-2702 | 215.925.2222 phone | 215.925.1954 fax
chemheritage.org

Dr. Michelle DiMeo
Director of Digital Library Initiatives
Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

Dr. Erin McLeary, Museum Director
Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

June 1, 2017

Dear Dr. McLeary,

I am pleased to submit this letter of support for the Chemical Heritage Foundation's application for funding from the National Endowment for the Humanities' Digital Projects for the Public program for CHF's *Age of Alchemy* game. This letter also represents my commitment to serve as a humanities advisor for the *Age of Alchemy* Game Project. This project will be a valuable contribution to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern alchemy and science for broader public audiences.

I am a historian of early modern science and medicine and I hold a Ph.D. from the University of Warwick, where I completed a dissertation on Katherine Jones, Lady Ranelagh (1615-91), the older sister of the chemist Robert Boyle. My recent publications include the co-edited collection *Reading and Writing Recipe Books 1550-1800* (Manchester University Press, 2013) and I am currently developing a book that considers Lady Ranelagh within a wider social and intellectual context for how women practiced chemical medicine and science across the seventeenth century. I also work as CHF's Director of Digital Library Initiatives, where I write policies, establish workflows, and oversee the CHF team responsible for all aspects of digital collection development, including photography, metadata creation, digital preservation, and open-source software development. I previously worked as the Director of Digital Library Initiatives at the College of Physicians of Philadelphia and served on the Governance Group for the Medical Heritage Library consortium. Prior to my current position, I began my relationship with CHF in January 2014 when I was the recipient of an Allington Research Fellowship. I am pleased to bring my dual expertise in the history of early modern science and in humanities-based digital initiatives to my role as an advisor for this project.

If this grant is successful, I look forward to working with other historians and digital humanists as an advisor for CHF's *Age of Alchemy* game. This is an exciting time for new scholarship in the history of alchemy and early chemistry, and CHF's new game promises to make these research developments accessible to the public for the first time.

Sincerely,

Michelle DiMeo, Ph.D.

Bruce T Moran
Professor of History
University of Nevada, Reno

Fellowships, Appointments, and Awards

- Gordon Cain Distinguished Fellow, Chemical Heritage Foundation, 2014-15.
- Distinguished Visiting Faculty, Harvard University, Department of the History of Science, 2012-2013
- Dibner Distinguished Fellow in the History of Science and Technology, Huntington Library(2010-2011)
- University Outstanding Researcher Award (2009)
- Dean's Award for Research (2007)
- Research Fellow: Wellcome Trust Center for the History of Medicine at UCL, London (2004-2005)
- Adjunct Professor of Philosophy (2000-present)
- National Science Foundation Research Award (1997-1999)
- Visiting Fellow: Clare Hall and Dept. of the History and Philosophy of Science, Cambridge University (1997-1998)
- University of Nevada Foundation Professor (1993-present)
- Guest Professor: *Institut für Pharmaziegeschichte*, Marburg (1990-1991)
- Arts and Science Teaching Excellence Award (1988)
- Stipendiat, Alexander von Humboldt *Stiftung* (1983-1984; renewed 1985, 1987)
- Research Associate: Murhardsche Bibliothek und Landesbibliothek, Kassel (1983-1984)

Publications

Books: In Progress

Things Made and Things in the Making: Sentiment, Aspiration, and Practice in Early Modern Alchemy

Books: Under Contract and Forthcoming

- Paracelsus: Alchemy and the Liberation of Medicine* (London: Reaktion Books, due 2017)
- A Cultural History of Chemistry* (6 vols.), vol. 3, *Renaissance and early Modern Chymistry* (London: Bloomsbury, due 2017/18).

Books: in Print

- *Bridging Traditions: Alchemy, Chemistry, and Paracelsian Practices in the Early Modern Era --Essays in Honor of Allen G. Debus*, co-ed. (Kirkville: Truman State University Press, 2015).
- *Andreas Libavius and the Transformation of Alchemy: Separating Chemical Cultures with Polemical Fire* (Sagamore Beach: Science History Publications, 2007).
- *Distilling Knowledge: Alchemy, Chemistry, and the Scientific Revolution* (Cambridge Mass.: Harvard University Press, 2005).
- *Disease and Medical Care in the Mountain West: Essays on Region, History, and Practice*, co-ed. (Reno/Las Vegas: University of Nevada Press, 1998).
- *The Alchemical World of the German Court: Occult Philosophy and Chemical Medicine at the Court of Moritz of Hessen* (Stuttgart: Franz Steiner Verlag, 1991).
- *Chemical Pharmacy at the University: Johannes Hartmann and the Didactic Care of Chymiatría* (Madison: American Institute of the History of Pharmacy, 1991).
- *Patronage and Institutions: Science, Technology, and Medicine at the European Court 1500-1750*, ed. (Woodbridge and Rochester: The Boydell Press, 1991).

Articles: Forthcoming

- "Preserving the Cutting Edge: Traveling Woodblocks, Material Networks, and Visualizing Plants in Early Modern Europe," in *Structures of Practical Knowledge*, ed. Matteo Valeriani (Max Planck Institute of the History of Science, Springer Verlag, forthcoming 2017).
- "The Subtleties of Enterprise: medical performance and the alchemy of plants in the ventures of Leonhard Thurneisser," in Jennifer Rampling and Peter Jones, eds., *Alchemy and Medicine from Antiquity to the Enlightenment* (forthcoming in *Science in Context*, 2017/18).

Articles and Chapters : in print, selected

- "The Court," in *A Companion to the History of Science*, ed. Bernard V Lightman (Chichester: John Wiley and Sons Blackwell, 2016), 210-223.
- "Paracelsus and Paracelsianism" in Glenn Magee, ed., *The Cambridge Handbook of Western Mysticism and Esotericism*. Cambridge: Cambridge University Press (Cambridge University Press, 2016), 156-170.
- "Introduction," pp. xiii-xxi, and "Andreas Libavius and the Art of *Chymia*: Words, Works, Precepts, and Social Practices," pp. 59-78 in Moran, ed., *Bridging Traditions: Alchemy, Chemistry, and Paracelsian Practices in the Early Modern Era* (Kirkville, 2015).
- "Eloquence in the Marketplace: Erudition and Pragmatic Humanism in the Restoration of Chymia," in *Chemical Knowledge in the Early Modern World*, ed. M. Eddy, S. Mauskopf, and W.R. Newman, *Osiris* 29 (2014), 49-62.
- "Art and Artisanry in Early Modern Alchemy," *The Getty Research Journal* 5 (2013), 1-14
- Editor, *Focus: Alchemy and the History of Science*, *Isis* 102 (June, 2011), 300-337, Introduction with contributions by Larry Principe (Johns Hopkins University), William Newman (Indiana University), Tara Nummedal (Brown University), and Kevin Chang (Academica Sinica, Taiwan).
- "The Singularity of Alchemical Experience: The Case of Camillo Baldi," in *Chymia: Science and Nature in Medieval and Early Modern Europe*, ed. Miguel López-Pérez, Didier Kahn and Mar Rey-Bueno (CSP: Newcastle upon Tyne, 2010), pp. 232-246.
- "Extracting the Virtues of Nature: Spagyric Remedies and Chemical Metaphors in the Library of Don Vincencio Juan de Lastanosa," in *The Gentleman, Virtuoso, and Inquirer: Vincencio Juan de Lastanosa and the Art of Collecting in Early Modern Spain*, ed. Mar Rey Bueno and Miguel López Pérez (CSP: Newcastle upon Tyne, 2008), pp. 144-156. Trans. "Extraer las Virtudes y los Secretos de la Naturaleza: Medicinas Químicas y Remedios Espagíricos en el Universo de Vincencio Juan de Lastanosa," in *El Inquiridor de Maravillas: prodigios, curiosidades y secretos de la naturaleza en la España de Vincencio Juan de Lastanosa*, ed. Mar Rey Bueno and Miguel López-Pérez (Huesca: Instituto de Estudios Altoaragoneses, 2011), pp. 337-350.
- "The Less Well-Known Libavius: Spirits, Powers, and Metaphors in the Practice of Knowing Nature," in Principe ed., *Chymists and Chymistry: Studies in the History of Alchemy and Early Modern Chemistry* (Sagamore Beach: Science History Publications, 2007), pp. 13-24.
- "The Book No One Will Write" (Author's Response), pp. 482-489, in Review Symposium, "Turning up the Mould In Search of the Gold," *Metascience* 15 (2006), 471-489.
- "Courts and Academies," in *The Cambridge History of Science*, ed. Park and Daston (Cambridge: Cambridge University Press, 2006), vol. 3, pp. 251-271.
- "Axioms, Essences, and Mostly Clean Hands: Preparing to Teach Chemistry with Libavius and Aristotle," *Science and Education*, 15 (2006), pp. 173-187.
- "Knowing How and Knowing That: Artisans, Bodies, and Natural Knowledge in the Scientific Revolution" (essay review), *Studies in the History and Philosophy of Science* 36 (2005), pp. 577-585.
- "Paracelsianism," in *Dictionary of Gnosis and Western Esotericism*, ed. Wouter Hanegraff et al., Leiden: Brill, 2005, vol. 2, pp. 915-922.
- "Alchemy," "Paracelsus," "Jean Baptiste van Helmont" in *Europe 1450-1789: Encyclopedia of the Early Modern World* (New York: Charles Scribner's Sons, 2004), pp. vol. 1, 32-35; vol. 3, 146-147; vol. 4, 392-394.
- "Alchemy, Chemistry, and the History of Science" (essay review), *Studies in the History and Philosophy of Science* 31(2000), pp. 711-720.
- "Scientific Patronage," in Applebaum et al., *The Scientific Revolution: An Encyclopedia* (New York: Garland, 2000), 484-488.
- "Patronage Styles and Moritz the Learned as Alchemical Maesenas, in *Landgraf Moritz der Gelehrte: ein Calvinist zwischwen Politik und Wissenschaft*," ed. Gerhard Menk (Trautvetter und Fischer: Marburg, 2000), pp. 215-228.
- "Medicine, Alchemy, and the Control of Language: Andreas Libavius vs. the Neoparacelsians," in *Paracelsus: The Man and His Reputation, His Ideas and the Transformation*, ed. Ole Peter Grell (Leiden: Brill, 1998), 135-149.
- "Libavius the Paracelsian? Monstrous Novelties, Institutions, and the Norms of Social Virtue," in Allen Debus and Michael Walton eds., *Reading the Book of Nature: The Other Side of the Scientific Revolution* (Kirkville: Sixteenth Century Journal Publishers, 1998), 67-79.
- "Paracelsus, Religion, and Dissent: The Case of Philipp Homagius and Georg Zimmermann," *Ambix*, 43 (1996), pp. 65-79.

Dr. Bruce Moran
Professor of History
University of Nevada, Reno
Lincoln Hall, 202
Reno, NV 89512

Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

May 18, 2017

Dear Dr. McLeary,

I am pleased to commit to an advisory relationship with The Chemical Heritage Foundation (CHF) for their *Age of Alchemy* Game Project and in support of their application for a Digital Projects for the Public Prototyping grant from the National Endowment for the Humanities (NEH). This project will be a valuable contribution to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern alchemy and science for a broader public.

I greatly enjoyed my experiences at CHF, as the 2014-2015 Gordon Cain Distinguished Fellow, and the opportunity to conduct research in your extensive alchemical collections. My forthcoming book, *Alchemical Practices and the Objects of Everyday*, will explore some of the same fertile ground that is expressed visually in CHF's collections—the ephemera, tools, objects, and mundane practices that circulated within and around alchemical inquiry.

As the author of *The Alchemical World of the German Court* (1991); *Chemical Pharmacy Enters the University: Joahannes Hartmann and the Didactic Care of Chymiatra* (1991); *Distilling Knowledge: Alchemy, Chemistry, and the Scientific Revolution* (2005); and *Andreas Libavius and the Transformation of Alchemy: Separating Chemical Cultures with Polemical Fire* (2007), I am eager to be a part of a project which I believe has the capacity to translate and share alchemy's rich culture and history with new audiences.

In closing, please accept this letter as proof of my commitment to serve as a humanities advisor for CHF's *Age of Alchemy* Game Project. I am looking forward to working with your game design and research teams, should your NEH application be accepted.

Sincerely,

Bruce Moran, PhD

Biographical Sketch of William R. Newman

Undergraduate Institution

University of North Carolina at Greensboro, History of Science and Proto-Science, B.A., 1978.

Graduate Institution

Harvard University, History of Science, Ph.D., 1986.

Appointments

Indiana University, History and Philosophy of Science, 1996 – present, Distinguished Professor, Ruth N. Halls Professor.

Harvard University, History of Science, Associate Professor, 1993-1996, Assistant Professor, 1989-1993.

Stonehill College, History of Science, 1986-1989, Assistant Professor.

Relevant Publications

Chemical Knowledge in the Early Modern World (co-edited with Seymour Mauskopf and Matthew Eddy), *Osiris* 29(2014).

“Newton’s Early Optical Theory and its Debt to Chymistry,” in Danielle Jacquart and Michel Hochmann, eds., *Lumière et vision dans les sciences et dans les arts* (Geneva: Droz, 2010), pp. 283-307.

“Newton’s Theory of Metallic Generation in the Previously Neglected Text ‘Humores minerales continuo decidunt’,” in Lawrence M. Principe, ed., *Chymists and Chymistry: Studies in the History of Alchemy and Early Modern Chemistry* (Sagamore Beach, MA: Chemical Heritage Foundation and Science History Publications, 2007), pp. 89-100.

“The Background to Newton’s Chymistry,” in *The Cambridge Companion to Newton*, I. Bernard Cohen and George Smith, eds. (Cambridge: Cambridge University Press, 2002), pp. 358-369.

Alchemy Tried in the Fire: Starkey, Boyle, and the Fate of Helmontian Chymistry (with Lawrence M. Principe), (Chicago: University of Chicago Press, 2002).

Other Selected Publications

“What Have we Learned from the Recent Historiography of Alchemy?” *Focus Section, Isis* 102(2011), pp. 313-321.

George Starkey: Alchemical Laboratory Notes and Correspondence (with Lawrence M. Principe) (Chicago: University of Chicago Press, 2004)

“Some Problems with the Historiography of Alchemy” (with Lawrence M. Principe), in *Secrets of Nature: Astrology and Alchemy in Early Modern Europe* (volume of articles co-edited with Anthony Grafton), (Cambridge, MA: MIT Press, 2001), pp. 385-431.

"Alchemy vs. Chemistry: The Etymological Origins of a Historiographic Mistake" (with Lawrence M. Principe), in *Early Science and Medicine* 3(1998), pp. 32-65.

Synergistic Activities

2010 Gave public lecture with laboratory-based demonstrations of "Why Newton Believed in Alchemy" for Perimeter Institute for Theoretical Physics, Waterloo, Ontario.

2005 – Developed a sequence of replicated chymical experiments based on Isaac Newton's laboratory notebooks for use in NOVA documentary, "Newton's Dark Secrets."

2002 – Built a working replica of Newton's chymical-metallurgical wind-furnace described in the University of Chicago Schaffner MS. for BBC documentary, "Newton – The Dark Heretic."

1996 – Wrote successful grant proposal for \$100,000 in funding from the Strategic Directions Initiative at Indiana University to create a new interdisciplinary area certificate program centered on the Department of History and Philosophy of Science.

1995 – Conceived and developed annual teacher-training program for Department of History of Science at Harvard University. The program is still in effect. Conceived and developed simultaneously an undergraduate conference series for Harvard History of Science Department, the first to be held at Harvard University.

William R. Newman, PhD
Distinguished Professor, Ruth N. Halls Professor
Department of History and Philosophy of Science
Indiana University
1020 Kirkwood Ave., Ballantine Hall 644
Bloomington, IN 47405

Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

24 May 2017

Dear Dr. McLeary,

I am pleased to submit this letter of support for The Chemical Heritage Foundation's application for funding from the National Endowment for the Humanities' (NEH) Digital Projects for the Public program for CHF's *Age of Alchemy* game. This letter also represents my commitment to serve as a humanities advisor for the *Age of Alchemy* Game Project. This project will be a valuable contribution to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern alchemy and science for broader public audiences.

I began my relationship with CHF in (2015) when I served as Gordon Cain Distinguished Fellow. My role at CHF included research on Isaac Newton's alchemy for the purpose of writing a book on the subject. During that time I also co-organized an NEH sponsored workshop on a proposed Chymical Encyclopedia, Database, and Repository (with James Voelkel of the CHF). The workshop took place in May 2016.

I should add that my entire scholarly career has focused on the history of alchemy. My doctoral dissertation, later published in 1991 as *The Summa perfectionis of pseudo-Geber*, was a study of the most influential alchemical text of the Middle Ages. My subsequent work has focused on early modern "chymistry" as well as medieval alchemy. In closing, please accept this letter as proof of my intent to serve as a humanities advisor for CHF's *Age of Alchemy* Game Project. I am looking forward to fulfilling my capacity as an advisor, should your NEH application be accepted.

Sincerely,

William R. Newman, PhD

Curriculum Vitae (2017)

Lawrence M. Principe

Office Address: Department of the History of Science and Technology, 301 Gilman Hall, Johns Hopkins University, Baltimore, MD 21218 USA *or* Chemistry Department, Remsen Hall, Johns Hopkins University, Baltimore, MD 21218 USA.

Education:

- 1996 Ph.D.; History of Science, Johns Hopkins University.
- 1988 Ph.D.; Organic Chemistry, Indiana University.
- 1983 B.S.; Chemistry, University of Delaware.
- 1983 Honors B.A.; Liberal Studies, University of Delaware.

Positions Held:

- 2011- Director, Singleton Center for the Study of Premodern Europe, JHU
- 2006- Drew Professor of the Humanities, Department of the History of Science and Technology and Department of Chemistry, Johns Hopkins University.
- 2010 F. C. Donders Professor, Universiteit te Utrecht
- 2002-06 Professor, HST and Chemistry, JHU
- 2005 Francis Bacon Visiting Professor of History, California Institute of Technology
- 1999-02 Associate Professor, HST and Chemistry, JHU
- 1997-99 Assistant Professor, HST and Chemistry, JHU
- 1996-97 Associate Research Scientist, Chemistry Department, JHU
- 1994-97 Senior Lecturer of Chemistry, Chemistry Department, JHU
- 1989-94 Lecturer of Chemistry and Laboratory Instructor, Chemistry Department, JHU.

Selected Publications:**Books:**

- The Secrets of Alchemy* (Chicago: University of Chicago Press, 2013).
- The Scientific Revolution: A Very Short Introduction* (Oxford: Oxford University Press, 2011).
[Spanish ed. (Madrid: Alianza, 2013); Swedish ed. (Stockholm: Fri Tanke, 2013); Chinese ed. (Yilin Press, 2013); Arabic ed.(Cairo: Hindawi Publishing, 2014); Japanese ed. (Tokyo: Maruzen, 2014); Korean (forthcoming).]
- Chymists and Chymistry: Studies in the History of Alchemy and Early Modern Chemistry*, ed. (Sagamore Beach, MA: Science History Publications, 2007).
- The Alchemical Laboratory Notebooks and Correspondence of George Starkey*. With William R. Newman. (Chicago: University of Chicago Press, 2004).
- Alchemy Tried in the Fire: Starkey, Boyle, and the Fate of Helmontian Chymistry*. With William R. Newman. (Chicago: University of Chicago Press, 2002).
- Transmutations: Alchemy in Art*. With Lloyd DeWitt. (Philadelphia: Chemical Heritage Foundation, 2002).
- The Aspiring Adept: Robert Boyle and His Alchemical Quest*. (Princeton: Princeton University Press, 1998).

Media/Public Education:

- Science and Religion*, (a video course in twelve 30-minute lectures; produced by The Teaching Company, Chantilly, VA 2006).
- History of Science: Antiquity to 1700*, (a video course in thirty-six 30-minute lectures; produced by The Teaching Company, Chantilly, VA, 2003).

Articles:

- “The Chymist and the Physician: Rivalry and Conflict at the *Académie Royale des Sciences*,” in *Medicine and Alchemy*, ed. Jennifer Rampling (Cambridge: Cambridge University Press, forthcoming 2017).
- “Bühnen der Alchemie: Theaterdrama innerhalb und außerhalb des Laboratoriums,” pp. 228-249 in *Spuren der Avantgarde: Theatrum alchemicum, frühe Neuzeit und Moderne im Kulturvergleich*, eds. Helmar Schramm, Michael Lorber, and Jan Lazardzig (Berlin: De Gruyter, 2017).
- “Chymical Exotica in the Seventeenth Century, or, How to Make the Bologna Stone,” *Ambix* 63 (2016):118-44.

- "From the Library to the Laboratory and Back Again: Experiment as a Tool for Historians of Science," (with Hjalmar Fors and H. Otto Sibum), *Ambix* 63 (2016):85-97 [Guest edited issue]
- "Goldsmiths and Chymists: The Activity of Artisans in Alchemical Circles," pp. 157-179 in *Laboratories of Art: Alchemy and Art Technology from Antiquity to the Eighteenth Century*, ed. Sven Dupré, (Dordrecht: Springer, 2014).
- "Revealing Analogies: The Descriptive and Deceptive Roles of Sexuality and Gender in Latin Alchemy," pp. 209-229 in *Hidden Intercourse: Eros and Sexuality in Western Esotericism*, eds. Wouter Hanegraaff and Jeffrey J. Kripal, (Leiden: Brill, 2008).
- "Alchemy and Its Images in the Eddleman and Fisher Collections at the Chemical Heritage Foundation." With Lloyd DeWitt. Pp. 221-47, in *Art and Alchemy*, ed. Jacob Wamberg (Copenhagen: Museum Tusculum, 2005).
- "Reflections on Newton's Alchemy in Light of the New Historiography of Alchemy." Pp. 205-19 in *Newton and Newtonianism: New Studies*, eds. James E. Force and Sarah Hutton, (Dordrecht: Kluwer, 2004).
- "Some Problems in the Historiography of Alchemy." With William R. Newman. Pp. 385-434 in: *Secrets of Nature: Astrology and Alchemy in Early Modern Europe*, ed. William Newman and Anthony Grafton, (Cambridge, MA: MIT Press, 2001).

Recent Presented Papers:

- "Locality, Materials, and Reproductions," Journée d'étude: *L'Atelier de la Nature*, Centre Alexandre Koyré, Paris, France, 10 November 2016.
- "Rêves d'or: La surprenante longévité de l'alchimie au coeur de la chimie," La Maison de la Chimie, Paris, France, 9 November 2016. [Address upon reception of the Prix Franklin-Lavoisier.]
- "The Fates and Futures of Alchemy and Medieval Natural Philosophy," Plenary Lecture for the "Science Before Science" Symposium, Bowdoin College, ME, 26 February 2015.
- "Alchemy on the Cutting Edge: Theoretical Innovations and the Pursuit of Transmutation," Dibner Distinguished Lecture, Smithsonian Institution, Washington, DC, 11 December 2014.

Selected Honors, Awards, and Fellowships:

- 2016, Prix Franklin-Lavoisier, Fondation de la Maison de la Chimie and Chemical Heritage Foundation
- 2016, Rausing Fellowship, Uppsala University, Sweden
- 2015-16, John Simon Guggenheim Memorial Fellowship
- 2015, Elected *Membre Effectif* (Fellow) of the Académie internationale d'histoire des sciences
- 2014, Dibner Lecturer, Smithsonian Institution
- 2011, George Sarton Memorial Lecturer, American Academy of Arts and Sciences

Recent Grants:

- "Sources of Alchemy," Society for the History of Alchemy and Chemistry, £800, 2015
- "The Supernova of 1604 as a Source of Scientific Debate," National Science Foundation, 2008-2010, \$84,000.
- "International Conference on Early Chemistry," National Science Foundation, 2005-2006; \$10,000.
- "The Formation of Chemists and Chemistry," National Science Foundation CAREER Grant, 2000-2006; \$273,348.

Conferences and Workshops Organized:

- "Greek, Coptic, Syriac and Arabic Alchemy," Assisi, Italy 22-26 August 2015.
- "Early Sources of Alchemy," 7-10 May 2014, Johns Hopkins University, Baltimore.
- "L'Accademia del Cimento nel Contesto Europeo," 14-15 December 2007, Istituto e Museo di Storia della Scienza, Florence, Italy.
- International Conference on Alchemy and Chymistry, 19-22 July 2006, Chemical Heritage Foundation, Philadelphia, PA; ca. 120 participants.
- Francis Bacon Workshop on 18th Century Chemistry, 21-23 April 2005, CalTech, Pasadena, CA.

**The Charles Singleton Center for the
Study of Premodern Europe**

3400 North Charles Street
Baltimore MD 21218
410-516-5296 / Fax 410-516-7586
Lmafp@jhu.edu
<http://krieger.jhu.edu/singleton>

Lawrence Principe
~~Interim~~ Director

5 June 2017

Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, Pa., 19106

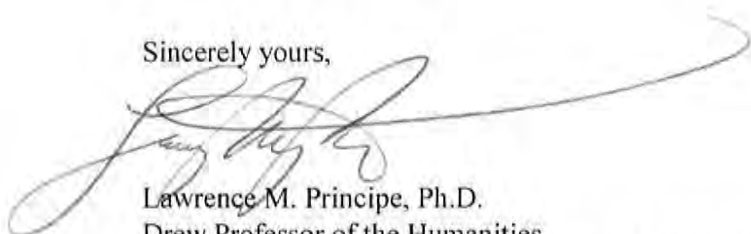
Dear Dr. McLeary,

I am pleased to commit to an advisory relationship with The Chemical Heritage Foundation (CHF) for their *Age of Alchemy* Game Project and in support of their application for a Digital Projects for the Public Prototyping grant from the National Endowment for the Humanities (NEH). This project will be a valuable contribution to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern alchemy and science for broader public audiences.

My expertise lies in the history of alchemy, and I have published and spoken widely on the topic over the past thirty years. I began my relationship with CHF over twenty years ago, serving in multiple roles both as a fellow and as a consultant. My role at CHF included cataloguing, studying, and publicizing the large collection of alchemical art acquired by CHF, which resulted in the publication of *Transmutations: Alchemy in Art* (2002). I was later brought in to help organize, study, and publicize the Neville Collection of rare books and manuscripts, which resulted not only in several publications, but in my organizing an international conference on alchemy in 2006. Since that time I have worked regularly with CHF staff on numerous projects that include giving public lectures, setting up fellowships, acquiring alchemical books and manuscripts, organizing exhibition displays, and participating in events both public and private.

In closing, please accept this letter as proof of my intent to serve as a humanities advisor for CHF's *Age of Alchemy* Game Project. I am looking forward to fulfilling my capacity as an advisor, should the NEH application be accepted.

Sincerely yours,



Lawrence M. Principe, Ph.D.
Drew Professor of the Humanities
Department of the History of Science and Technology
and Department of Chemistry
Director, Singleton Center for the Study of Premodern Europe

David T. Schaller

Eduweb
1776 Iglehart Avenue
St. Paul, MN 55104

Phone: (651) 641-7566
Fax: (651) 917-9481
david@eduweb.com

EDUCATION

Macalester College, St. Paul, MN
B.A. in Humanities, 1986.

University of Minnesota, Geography Department, Minneapolis, MN.
M.A. in Geography and Museum Studies, 1996.
Emphasis on ecotourism as educational and development tool

PROFESSIONAL EXPERIENCE

Principal (1997 - present)

Eduweb, St. Paul, Minnesota

Responsible for creative and business development of firm. Lead developer of digital learning games and interactives for informal educational organizations, also leads research on applications of interactive media and learning theory.

Industry Awards:

- Gold, Silver, Bronze and Honorable Mention MUSE Awards, American Association of Museums 2002-2012
- Best of the Web, Educational Use, Museums and the Web 2000, 2001, 2004, 2008
- Award of Merit, American Association for State and Local History, 2006, 2010, 2011, 2012
- Pirelli *INTERNET*ional Award, Top Prize and Physics Category Winner, 2005

Selected Projects:

Project Manager and Game Designer, *Traders & Raiders*, Historic Hudson Valley, Tarrytown, NY. 2015-2017.

Project Manager and Game Designer, *Cold War Dare*, George Bush Presidential Library and Museum, College Station, TX. 2015-2016.

Project Manager and Game Designer, *Wright Brothers' Workshop*, National Air and Space Museum, Smithsonian Institute, Washington, D.C. 2014-2016.

Co-Principal Investigator for learning game funded by the National Science Foundation, *WolfQuest: Learning through gameplay*, 2007-present.

Principal Investigator for research study funded by the National Science Foundation, *A Study of The Relationship between Learning Style and Preference for Online Informal Educational Activities*. Grant #ESI-0337116. 2005-2007.

Game Producer, *Betwixt Folly and Fate*, Colonial Williamsburg Foundation. 2008. Gold MUSE Award Winner, American Association of Museums.

Freelance Exhibit Writer (1994 – 1998)

Wrote exhibit text for natural science and history museums and informal learning centers around the country, including the Bell Museum of Natural History, Great Lakes Aquarium, Sioux Falls Outdoor Campus, Kentucky History Center, and Jefferson Davis Presidential Library.

PUBLICATIONS

D. Schaller. (2014.) Game Mechanics and the Museum: Designing simple gameplay around complex content. In N. Proctor & R. Cherry (eds), *Museums and the Web 2014*. Silver Spring, MD: Museums and the Web.

Schaller, D. (2011.) The Meaning Makes It Fun: Game-Based Learning for Museums. *Journal of Museum Education*. 36(3). 261-268.

Schaller, D. (2011). "From Knowledge to Narrative – to Systems? Games, Rules and Meaning-making." In J. Trant and D. Bearman (eds). *Museums and the Web 2011: Proceedings*. Toronto: Archives & Museum Informatics.

Schaller, D.T., Haley Goldman, K., Spickelmier, G., Allison-Bunnell, S.W., Koepfler, J. (2009). Learning in the Wild: What WolfQuest taught developers and players. In D. Bearman and J. Trant's (Eds.) *Museums and the Web 2009: Proceedings*. Toronto: Archives & Museum Informatics.

Schaller, D.T. 2007. "Playing Games with History." *History News*. 62(3), 5-6.

Edwards, S.E. and Schaller, D.T. (2007). The Name of the Game. In H. Din and P. Hecht (eds). *The Digital Museum: A Think Guide*. Washington, D.C.: American Association of Museums.

Schaller, D.T., Borun, M., Allison-Bunnell, S.W. and Chambers, M. (2007). One Size Does Not Fit All: Learning Style, Play, and On-line Interactives. In J. Trant and D. Bearman (eds). *Museums and the Web 2007: Selected Papers from an International Conference*. Toronto: Archives and Museum Informatics.

Haley Goldman, K. and Schaller, D.T. (2004). Exploring Motivational Factors and Visitor Satisfaction in On-line Museum Visits. In D. Bearman & J. Trant, (eds.), *Museums & the Web 2004: Selected Papers from an International Conference*. Toronto: Archives and Museum Informatics.

Schaller, D.T., and Allison-Bunnell, S.W. (2003). Practicing What We Teach: How learning theory can guide development of online learning activities. In D. Bearman & J. Trant, (eds.), *Museums & the Web 2003: Selected Papers from an International Conference*. Pittsburgh: Archives and Museum Informatics.

PROFESSIONAL ACTIVITIES

Workshop Instructor, American Association of State and Local History annual conference, 2014-2015.

Advisor, Play the Past, Minnesota Historical Society, 2012-13.

Workshop Instructor, Museums and the Web annual conference, 2001-2014

Media and Technology Committee Board, American Association of Museums, 2002- 2008

Panel reviewer, National Science Foundation Informal Science Education, 2004, 2005.

Advisor, Exhibit and Multimedia Planning, Weeksville Heritage Society, 2006, 2007, 2011



May 3, 2017

Charles McGhee Hassrick
Digital Projects Manager
Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

Dear Charles,

It has been a pleasure to talk with you about the Chemical Heritage Society's game, *Age of Alchemy*, and I enthusiastically agree to serve on the advisory committee for this project. I see great potential for creating playful and meaningful gameplay about seventeenth-century alchemy. We have produced many such history games over the years (such as "A Sailor's Life for Me," developed with the USS Constitution Museum, which drops players into the exciting world of Old Ironsides — and which won awards from AAM and AASLH). With such rich prospects for exciting and meaningful experiences, I'm excited about participating in the advisory board meetings with you and the project team.

My firm, Eduweb, develops award-winning digital learning games and apps for museums and other educational organizations. Our mission is to create exciting and effective learning experiences that hit the sweet spot where learning theory, digital technology, and fun meet. Over the past twenty years, we've developed over 200 digital learning games and apps, including many that explore American history and cultural heritage for Colonial Williamsburg, the National Park Service, and other historic sites and history museums around the country.

I'm pleased to offer my commitment to the project's advisory committee meetings and appreciate the honorarium. I look forward to helping in any way I can.

Sincerely,

A handwritten signature in black ink, appearing to read "David Schaller", with a long, sweeping horizontal line extending to the right.

David Schaller
Principal

2/2017

Curriculum Vitae

PAMELA H. SMITH

<http://www.history.columbia.edu/faculty/Smith.html>

Office Address

Department of History, Columbia University, 605 Fayerweather Hall, MC 2516, 1180 Amsterdam Avenue, New York, N.Y. 10027, Phone: (212) 854-7662, email: ps2270@columbia.edu

EDUCATION

THE JOHNS HOPKINS UNIVERSITY, Baltimore, Maryland (1983-1990)

Ph.D., May 1991. Department of the History of Science.

Dissertation: "Alchemy, Credit, and the Commerce of Words and Things: Johann Joachim Becher at the Courts of the Holy Roman Empire, 1635-82" (Adviser: Owen Hannaway).

UNIVERSITY OF WOLLONGONG, Wollongong, New South Wales, Australia (1976-79)

B.A. First Class Honors, November 1979. Major: History and Philosophy of Science.

EMPLOYMENT

2005-present: Seth Low Professor of History, Columbia University, New York. Courses in early modern European history and history of science.

2014-present: Chair, Presidential Scholars in Society and Neuroscience

The aim of this crosscutting initiative is to bring together scholars from all fields around questions of brain and mind. A community of postdoctoral scholars will form the heart of a rich program of interdisciplinary events and research. <http://presidentialscholars.columbia.edu/>

2013-present: Founding Director, Center for Science and Society, Columbia University

<http://scienceandsociety.columbia.edu/>

2000-2005: Margaret and Edwin F. Hahn Professor in the Social Sciences, and Professor of History, Pomona College (1990-2005: Assistant and Associate Professor of History)

1996-2003: Director of European Studies, Claremont Graduate University

1992-2003 (excluding leaves): Chair, Science, Technology and Society Program of the Claremont Colleges

RECENT FELLOWSHIPS AND GRANTS

Gerda Henkel Foundation: Making and Knowing Postdoctoral Research Scholar, February 2017-January 2019.

NSF: Summer Workshop Grant #1656227 for Making and Knowing Paleography/Translation Workshop, June 19-30, 2017.

NEH: Scholarly Editions and Translations Grant #RQ249842 for "Craft Techniques and Knowledge Systems in a 16th-Century Artist's Manuscript: An Open-Access Critical Edition and Translation," October 2016-September 2019.

Collaboratory@Columbia: Seed Grant, September 2016-August 2018.

Andrew Mellon Foundation: Grant awarded to Columbia University for the founding of the Center for Science and Society at Columbia University, October 1-September 30, 2017.

NSF: Research Grant #1430843 "The Role of Tacit Knowledge in Experimentation," September 1, 2014-August 30, 2017.

http://www.mpiwg-berlin.mpg.de/en/research/projects/DeptII_Smith_Itineraries

SELECTED HONORS AND AWARDS

2016: Distinguished Lecturer, Center for Renaissance and Reformation Studies, University of Toronto

2014: Dean's Distinguished Lecturer in the Humanities, Columbia University Medical School

2013: Provost's University Lecture, Columbia University

2009-10: Fellow, Davis Center for Historical Studies, Princeton University

SELECTED PUBLICATIONS: BOOKS

The Matter of Art: Materials, Practices, Cultural Logics, c. 1250-1750, co-edited with Christy Anderson and Anne Dunlop, Manchester University Press, 2015. Paperback January 2016.

Ways of Making and Knowing: The Material Culture of Empirical Knowledge, co-edited with Amy R. W. Meyers and Harold J. Cook, Bard Graduate Center/University of Michigan Press, 2014.

Making Knowledge in Early Modern Europe: Practices, Objects, and Texts, 1400-1800, co-edited with Benjamin Schmidt, Chicago: University of Chicago Press, 2008.

The Body of the Artisan: Art and Experience in the Scientific Revolution, Chicago: University of Chicago Press, 2004. Paperback edition, 2005. Winner of the 2005 Leo Gershoy Prize for early modern European History awarded by the American Historical Association.

Merchants and Marvels: Commerce, Science and Art in Early Modern Europe, co-edited with Paula Findlen, New York: Routledge, 2002.

Books in preparation:

Edited volume: *Entangled Itineraries of Materials, Practices, and Knowing: Eurasian Nodes of convergence and transformation (from bronze to tea)*, in preparation.

From Lived Experience to the Written Word: Recovering Art and Skill in Early Modern Europe, in preparation.

Digital Editions:

Craft and Science: From the Workshop to the Laboratory. An Open-Access Digital Critical Edition and Translation of a Sixteenth-Century French Practitioner's Manuscript, BnF Ms. Fr. 640 (in preparation). www.makingandknowing.org

SELECTED PUBLICATIONS: ARTICLES

"Making and Knowing," *VARlorum: The Journal of the V&A Research Institute*, forthcoming 2017.

"Materials, Mimesis, and Meaning in Linda Bond's *Prayer*," in *Salvage Art*, ed. Elka Krajewska, forthcoming.

"The Making and Knowing Project," Exhibition Catalog, *L'Accademia all'académie: il disegno dal vero come pratica storica e sapere contemporaneo* (Rome, 2017).

"The Codification of Vernacular Theories of Metallic Generation in sixteenth-century European Mining and Metalworking," *The Structures of Practical Knowledge: Toward Early Modern Science*, Matteo Valeriani, ed. (Springer/Dordrecht, 2017): 371-392.

"Historians in the Laboratory: Reconstruction of Renaissance Art and Technology in the Making and Knowing Project," *Art History*, special issue on Art and Technology, 39.2 (2016): 210-233.

"Itineraries of Materials and Knowledge in the Early Modern World," *The Global Lives of Things*, Anne Gerritsen and Giorgio Riello, eds. (Routledge, 2015), pp. 31-61.

"What is a Secret? Secrets and Craft Knowledge in Early Modern Europe," *Secrets and Knowledge in Medicine and Science, 1500-1800*, ed. by Elaine Leong and Alisha Rankin (Ashgate, 2011): 47-66.

SELECTED PUBLIC OUTREACH

Kean, Sam. "Twenty-First-Century Alchemists," *The New Yorker*. 26 Sept. 2016.

The Recipes Project, "[A Recipe for Recipe Research: The Making and Knowing Project](#)," February 2016. See also "[Making 'Powder for Hourglasses' in the Early Modern Household](#)."

WHYY visits Smith's Making and Knowing Project in [The power of failure, and other lessons from a 400-year-old 'book of secrets'](#)

RECENT INVITED LECTURES

2016: "Historians in the Laboratory: The Making and Knowing Project," Cal Tech, 9 Nov.

"Making Art and Knowing Nature," UC Berkeley, 7-8 April.

Distinguished Lectureship, Center for Renaissance and Reformation Studies, University of Toronto, 14-16 March (2 lectures and 2 graduate workshops).

2015: "Philosophizing Artworks in Early Modern Europe," Art and Science, Rijksmuseum, Amsterdam, 17 September.

2014: "Science, Art, and Medicine: A Historian in the Laboratory," Dean's Distinguished Lecturer in the Humanities, Columbia University Medical School, 13 October.

2013: "Snakes, Lizards, and Manuscripts: Humanists in the Laboratory," University Lecture, Columbia University, 2 December. Available here: <http://www.youtube.com/watch?v=NhRXVKDlYjo&feature=youtu.be>

SELECTED CONFERENCES ORGANIZED

"Colormaking in BnF Ms. Fr. 640," Working Group of the Making and Knowing Project, 26-28 May 2016.

"Historical Reconstruction in Early Modern Europe," co-organizer, Chemical Heritage Foundation, Philadelphia, 9-10 October 2015.

"Itineraries of Materials, Recipes, Techniques, and Knowledge in the Early Modern World," Max Planck Institute for the History of Science, Berlin, March & July 2014, July 2015.

International Conference on the History of Alchemy and Chymistry (Advisory Committee), 19-22 July 2006, Chemical Heritage Foundation, Philadelphia.

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK
DEPARTMENT OF HISTORY

Dr. Pamela H. Smith
Seth Low Professor of History & Director of the Center for Science and Society
Columbia University
605 Fayerweather Hall, MC 2516
1180 Amsterdam Avenue
New York, N.Y. 10027

Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

7 June 2017

Dear Dr. McLeary,

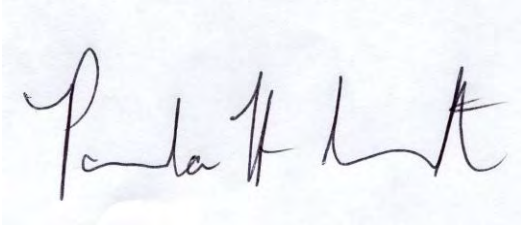
I am pleased to commit to an advisory relationship with The Chemical Heritage Foundation (CHF) for their *Age of Alchemy* Game Project and in support of their application for a Digital Projects for the Public Prototyping grant from the National Endowment for the Humanities (NEH). This project will be a valuable contribution to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern alchemy and science for broader public audiences.

I hold a Ph.D. from Johns Hopkins University and I am the Seth Low Professor of History at Columbia University. I specialize in early modern European history and the history of science. My current research focuses on attitudes to nature in early modern Europe and the Scientific Revolution, with particular attention to craft knowledge and historical techniques. I am the founding director of the Center for Science and Society (<http://scienceandsociety.columbia.edu/>), chair of the Presidential Scholars in Society and Neuroscience (<http://presidentialscholars.columbia.edu/>), and the 2016-18 President of The Renaissance Society of America.

I am also the founding director of the interdisciplinary research group the Making and Knowing Project (<http://www.makingandknowing.org/>), which was recently awarded an NEH Scholarly Editions and Translations Grant. The Making and Knowing Project is exploring several different, interconnected digital experiences as we develop the full digital critical edition of the project's key manuscript, Ms. Fr. 640, for which the first beta release is scheduled for late 2019. I am excited to collaborate on CHF's *Age of Alchemy* Game Project and contribute from my experiences in the history of science as well as in developing innovative digital projects for the public.

In closing, please accept this letter as proof of my intent to serve as a humanities advisor for CHF's *Age of Alchemy* Game Project. I am looking forward to fulfilling my capacity as an advisor, should your NEH application be accepted.

Sincerely,

A handwritten signature in black ink, appearing to read "Pamela H. Smith". The signature is written in a cursive style with a large initial "P" and a stylized "H".

Pamela H. Smith, Ph.D.

James R. Voelkel

Chemical Heritage Foundation
315 Chestnut St.
Philadelphia, PA 19106

Tel. 215-873-8271
Fax. 215-629-5271
jvoelkel@chemheritage.org

Current Positions

DONALD F. AND MILDRED TOPP OTHMER LIBRARY OF CHEMICAL HISTORY

Curator of Rare Books, curating a world-class research collection of approximately 6,000 rare books and manuscripts in the history of science from the 15th to the 20th century; acquiring new books across a wide range of primarily chemical disciplines with an acquisition budget of approximately \$200,000 per year; curating exhibits and engaging in public outreach through events, magazine articles and podcasts.

ARNOLD AND MABEL BECKMAN CENTER FOR THE HISTORY OF CHEMISTRY

Resident Scholar, conducting independent research in the history of early modern science; acting as PI for an NEH sponsored foundation grant for a digital humanities project entitled “A Chymical Encyclopedia, Database, and Repository.”

DEPARTMENT OF HISTORY AND SOCIOLOGY OF SCIENCE, UNIVERSITY OF PENNSYLVANIA

Lecturer, teaching STSC 202: The Scientific Revolution.

THE CHYMISTRY OF ISAAC NEWTON PROJECT

Senior Editorial and Encoding Consultant, as a senior member of the editorial staff, helping to maintain and establish best encoding practices and to edit the online edition of Newton’s alchemical manuscripts; helping to supervise postdoctoral and graduate students working on linking Newton’s notes to their printed sources.

Education

Ph.D. in history of science, Indiana University, Bloomington, Indiana, 1994.

M.A. in natural sciences (history and philosophy of science), Emmanuel College, Cambridge University, Cambridge, England, 1990. (Commuted from B.A. hons., 1986.)

M.A. in history and philosophy of science, Indiana University, Bloomington, Indiana, 1989.

B.A. with honors in astronomy and physics, Williams College, Williamstown, Massachusetts, 1984.

Professional Certification

Certificate of Proficiency in Bibliography, Rare Book School, Charlottesville, Virginia, Oct. 2012.

Previous Positions

THE CHYMISTRY OF ISAAC NEWTON PROJECT (chymistry.org)

7/05-12/07 & 3/04-9/04, **Senior Editor and Encoder**. Transcribed and encoded Newton’s alchemical manuscripts in TEI xml. Completed numerous Newtonian alchemical manuscripts, including Newton’s most complete alchemical notebook, Portsmouth Add. MS. 3975.

DIBNER INSTITUTE FOR THE HISTORY OF SCIENCE AND TECHNOLOGY

9/04-5/05, **Senior Fellow**, worked on translation with commentary of Kepler's *Rudolphine Tables*.

HISTORY OF RECENT SCIENCE AND TECHNOLOGY ON THE WEB

10/03-8/04, **System administrator and Curator** of HRST website.

6/01-9/03, **Digital Library Manager** (software developer), managing integration with Perseus digital library software with HRST digital library.

JOHNS HOPKINS UNIVERSITY, Dept. of History of Science, Medicine, and Technology
7/99-6/01, **Postdoctoral Teaching Fellow**.

DIBNER INSTITUTE FOR THE HISTORY OF SCIENCE AND TECHNOLOGY
9/97-8/99, **Postdoctoral Research Fellow**.

HARVARD UNIVERSITY

9/95-6/97, **Head Teaching Assistant** for Core Science A-17/B-17: The Astronomical Perspective, and **Teaching Assistant** in the Department of History of Science.

WILLIAMS COLLEGE, Dept. of Astronomy

7/94-6/95, **Visiting Assistant Professor of Astronomy and History of Science**.

Grants

"Foundation Proposal for a Chymical Encyclopedia, Database, and Repository (CEDR)," National Endowment for the Humanities, PW-228135-15, awarded 3/20/2015.

Exhibitions

Books of Secrets: Writing & Reading Alchemy, Clifford C. Hach Gallery, Chemical Heritage Foundation, December 5, 2014–September 4, 2015.

The Alchemical Quest, Clifford C. Hach Gallery, Chemical Heritage Foundation, July 2–December 7, 2012.

Books

The Composition of Kepler's Astronomia Nova (Princeton: Princeton University Press, 2001).

Johannes Kepler and the New Astronomy [Portraits in Science Series] (New York: Oxford University Press, 1999). Translated into Turkish (Ankara: Tübitak), Arabic (Riyadh: Obeikan), Chinese, and Japanese.

Selected Articles

"Giovanni Antonio Magini's 'Keplerian' Tables of 1614 and their Implications for the Reception of Keplerian Astronomy in the Seventeenth Century" (with Owen Gingerich), *Journal for the History of Astronomy*, 32 (2001): 237-262.

"Publish or Perish: Legal Contingencies and the Publication of Kepler's *Astronomia nova*," *Science in Context*, 12:1 (1999), 33-59.

"Tycho Brahe's Copernican Campaign" (with Owen Gingerich), *Journal for the History of Astronomy*, 29 (1998), 1-34.

Languages

German (fluent), Latin, and French.

Professional Associations

American Library Association; History of Science Society; Society for the History of Authorship, Reading, and Publishing; Society for the History of Alchemy and Chemistry; HIST section of the American Chemical Society.



2 June 2017

Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

Dear Dr. McLeary,

I am pleased to submit this letter of support for The Chemical Heritage Foundation's application for funding from the National Endowment for the Humanities' (NEH) Digital Projects for the Public program for CHF's *Age of Alchemy* game. This letter also represents my commitment to serve as a humanities advisor for the project. *Age of Alchemy* will be a valuable contribution to CHF's continuing efforts to interpret and make accessible our artworks and manuscripts related to the history of early modern alchemy and science for broader public audiences.

As a scholar of early modern science, I have published on early modern scientific figures, such as Johannes Kepler and Tycho Brahe, for both academic and public audiences. I am also a senior consulting editor for the Chymistry of Isaac Newton web project [www.chymistry.org], a web-based critical electronic edition of the alchemical manuscripts of Isaac Newton. I am Curator of Rare Books at CHF's Othmer Library of Chemical History, where I am responsible for CHF's world-class holdings of rare books and manuscripts related to early modern alchemy and science. In addition, I am responsible for the acquisition of rare books and manuscripts, and have in the past few years acquired over a dozen early alchemical manuscripts, from a 15th-century book of secrets to Newton's autograph copy of Starkey's *Preparation of the Sophick Mercury for the Philosophers' Stone*. In 2012, I curated an exhibition at CHF entitled "The Alchemical Quest," which featured rare alchemical books of the 16th, 17th, and 18th centuries drawn exclusively from the collections of the Othmer Library and explored alchemy's role as the foundation of modern chemistry. And in 2014, I co-curated an exhibit entitled *Books of Secrets* with CHF's curator of fine art, which examined practices of writing and reading through alchemical manuscripts and paintings. I have already consulted with the *Age of Alchemy* project team and participated in several design charrettes. For the project's prototyping phase, I am excited to bring my expertise as a historian of early modern science, as well as offer support in my role as Curator of Rare Books at the Othmer Library.

I support the Age of Alchemy Game Project proposal, and am looking forward to fulfilling my role as a humanities advisor for the project, should your NEH application be accepted.

Sincerely,

James R. Voelkel, Ph.D.

Curator of Rare Books, Othmer
Library of Chemical History
Resident Scholar, Beckman Center
for the History of Chemistry

Frank J. Lee

Education

U.C. Berkeley, Berkeley, CA	Cognitive Science (Summa Cum Laude)	B.A., 1994
CMU, Pittsburgh, PA	Cognitive Psychology	PhD., 2000
CMU, Pittsburgh, PA	Postdoctoral Research Associate	2000-2001

Appointments

Drexel University Philadelphia, PA	Associate Professor Digital Media Department, Westphal CoMAD - <i>Director, Entrepreneurial Game Studio</i> - <i>Co-Founder, Drexel Game Design Program</i> - <i>Affiliated Professor, Biomed Engineering</i> - <i>Affiliated Professor, Computer Science</i> - <i>Affiliated Professor, Psychology</i>	2013 – Pres.
Drexel University Philadelphia, PA	Teaching Professor Department of Computer Science	2009 – 2013
Drexel University Philadelphia, PA	Assistant Professor Department of Cognitive Science	2003 – 2009
RPI Troy, NY	Assistant Professor Department of Cognitive Science	2001 – 2003

Products

- *Skyscraper Tetris*. Public Interactive Light Installation, 2014. Philadelphia PA. The external LED lights of the Cira Centre, a 29-story skyscraper in Philadelphia, were reprogrammed to create an interactive public installation of playable Tetris™ game. It received more than 1500 articles and mentions in the media including the national broadcasts of over 22 countries.
- *Pong on the Cira Centre*. Public Interactive Light Installation, 2013. Philadelphia PA. The external LED lights of the Cira Centre, a 29-story skyscraper in Philadelphia, were reprogrammed to create an interactive public installation of playable Pong™ game. It received more than 300 articles and mentions in the media.
- Çakir N.A., Gass, A.B., Foster, A., Lee, F.J. (accepted). Designing Her Way into Computer Science: Empowering Young Girls Through Identity Exploration. In *European Conference on Educational Research*, Dublin, Ireland
- Çakir M.P., Çakir N.A., Ayez, H., Lee, F.J. (2015). An Optical Brain Imaging Study on the Improvements in Mathematical Fluency from Game-based Learning. In *ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play*. London, United Kingdom.
- Goldman T., Lee F.J., Zhu J. (2014). Using Video Games to Facilitate Understanding of Attention Deficit Hyperactivity Disorder: A Feasibility Study. In *ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play*, Toronto, Canada.

Synergistic Activities

- *Girl Scouts of Eastern Pennsylvania*. Hosted Girl Scout Troops from inner city Philadelphia for workshop on game design to get them interested in programming and technology by making games.
- *Techgirlz Workshop on Game Design*. Advised and hosted Techgirlz workshop on game design for middle school girls. Techgirlz is a local nonprofit group dedicated to getting more girls interested in technology. I served as an advisor and host for their game design workshop.
- *Let's Play PA*. Co-organized with Drew Davidson of CMU and Charles Palmer of Harrisburg University, the first Pennsylvania Consortium on Video Games, created as part of PA JOBS1st PA Initiative with funding from D2PA grant.
- *African American Chamber of Commerce of PA*. Invited by the African American Chamber of Commerce of PA to attend their outreach program to the young African-American professionals as a leader in the region's innovation and entrepreneurship.
- *PA State Legislature Tour*. Organized and hosted eight members of the PA state legislatures along with regional game companies to encourage the discussion between the two groups to discuss ways to accelerate the growth of the creative industry in PA.

Collaborators during the Last 48 Months

- Drew Davidson, Carnegie Mellon Univ.
- Charles Palmer, Harrisburg University
- Brian Smith, Drexel University
- Adrienne Mackey, Drexel University
- Jichen Zhu, Drexel University
- Perit Cakir, MET University, Turkey
- Nur Cakir, Hacettepe Univ., Turkey
- Hasan Ayez, Drexel University
- Arianna Gass, Drexel University

Graduate Advisor

- John Anderson, Carnegie Mellon University.

Postdoctoral Sponsor

- John Anderson, Carnegie Mellon University.

Thesis Advising

- Felicia Tucker, Drexel University
- Craig Benetz, Drexel University
- Quincy Brown, Drexel University

Postdoctoral-Scholar Sponsor

- Nur Cakir, Hacettepe University, Turkey.

Total number of graduate students advised (10)

Total number of postdoctoral scholars sponsored (1)



DREXEL UNIVERSITY

Entrepreneurial Game Studio

ExCITE Center

Expressive and Creative Interaction Technologies

June 6, 2017

Dear Dr. McLeary,

I am a Professor of Digital Media in the Westphal College of Media Arts and Design at Drexel University and the co-founder of Drexel's Game Design Program, ranked as one of the top undergraduate and graduate video game design programs in United States by The Princeton Review. I am also the Founding Director of the Entrepreneurial Game Studio (EGS) at Drexel University, an innovative incubator for student-formed independent game companies that are currently incubating 11 game companies. I also have extensive experience with funded projects. Within the last four years, I have been PI or Co-PI on grants totaling over \$2M.

I am pleased to submit this letter of support for The Chemical Heritage Foundation's (CHF) application for funding from the National Endowment for the Humanities' (NEH) Digital Projects for the Public program for CHF's *Age of Alchemy* game. This letter also represents my commitment to serve as an advisor and collaborator for the *Age of Alchemy* Game Project, in my position as Director of the Entrepreneurial Game Studio. This project draws upon recent reinterpretations by historians of the role of alchemical practice in creating both knowledge about the natural world and the modern scientific enterprise and will be a valuable contribution both to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern science and to the field of meaningful play.

My own work and creative interests closely align with CHF's project, in particular using digital experience to engage the public. In 2014, for the public installation project, *Skyscraper Tetris*, I reprogrammed the LED lights of the Cira Centre, a 29-story tall skyscraper in Philadelphia, to create an interactive multi-player game of Tetris. We had over 2500 people come to the 2-hour event and had mentions in over 1500 articles and broadcasts including the national broadcast news of over 22 countries. An analysis by a third-party media analytics firm estimated that based on the media coverage the project had over 2.2 Billion views.

In closing, please accept this letter as proof of my intent to serve as an advisor and collaborator for CHF's *Age of Alchemy* Game Project. I am pleased to bring my years of expertise in game design and game-based learning to my role as an advisor and collaborator for this project. I am looking forward to fulfilling this capacity, should your NEH application be accepted.

Sincerely,



--

Frank J. Lee, Ph.D.

Professor of Digital Media

Founding Director, Entrepreneurial Game Studio

Co-Founder, Drexel Game Design Program

Westphal College of Media Arts and Design, Drexel University

Entrepreneurial Game Studio Website: <http://egs.excite.drexel.edu/>

Personal Website: <http://www.pages.drexel.edu/~fjl24/>

"Polygon's 50 Admirable Gaming People, 2014"

"Hacker of the Year by Philly Geek Awards, 2013"

"The Smartest People in Philadelphia, 2012"

Thomas M. Sharpe

www.sharpedesigns.net

tom@gossamer-games.com

Education

Drexel University
Bachelor of Science in Game Art & Production

Philadelphia, PA
Graduated: June 2016
Cum Laude

Honors and Awards

13th International Mobile Gaming Awards, Nominee
2017 Intel University Games Showcase, Participant
2016 Rensselaer GameFest, Excellence in Mobile Gaming
Dean's List, Drexel University, Spring 2013 – 2014
Dean's Scholarship, Drexel University, 2012 – 2014

Skills

Game Engines: Unity, Unreal 4, GameMaker: Studio
3D Media Software: Maya, MotionBuilder, Mudbox; Pro Tools
Other Software: Adobe Creative Cloud, Pro Tools, GanttProject, Trello, Source Tree, Microsoft Office
Scripting Languages: C#, C++, HTML5

Work Experience

Gossamer Games LLC

Director

Philadelphia, PA
November 2014 to Present

- Co-founded and incorporated a limited liability company
- Director for Gossamer's debut game Sole
- Garnered international media attention for Gossamer Games
- Raised over \$10,000 in funding for the company's first project

Entrepreneurial Game Studio

EGS Co-op

Philadelphia, PA
April to September 2015

- Design front-end user interfaces for social mobile games
- Create promotional material for products and upcoming events
- Generate design documentation for a mobile game production
- Facilitate administrative operations across the organization

Project Experience

The Knowledge We Seek

Technical Director

Drexel University
February to March 2014

- Directed the art and technology development for a cross-platform VR puzzle game
- Implemented and optimized art assets for mobile and VR platforms
- Designed and implemented three cooperative puzzles using experimental technology
- Organized, facilitated, and documented dozens of playtesting sessions

Activities

- Member, Entrepreneurial Game Studio, 2014 – Present
- Member, International Game Developers Association, 2014 - 2015



Gossamer Games LLC
3230 Market Street
403 Pearlstein, Baiada Institute
Philadelphia, PA 19104

Dr. Erin McLeary, Museum Director
The Chemical Heritage Foundation
315 Chestnut Street
Philadelphia, PA 19106

June 6, 2017

Dear Dr. McLeary,

I am pleased to submit this letter of support for The Chemical Heritage Foundation's application for funding from the National Endowment for the Humanities' (NEH) Digital Projects for the Public program for CHF's *Age of Alchemy* game. As the Director and Co-Founder of Gossamer Games LLC, this letter also represents Gossamer's commitment to work as the Digital Media Team for the *Age of Alchemy* Game Project. This project will be a valuable contribution both to CHF's continuing efforts to interpret and make accessible their artworks and manuscripts related to the history of early modern science and to the field of meaningful mobile gameplay design.

Gossamer Games LLC, which was founded in 2015 and emerged out of the Entrepreneurial Game Studio at Drexel University, creates ambitious aesthetic-driven experiences that explore games as an empathetic and expressive art form. Our mission is to make accessible games that allow players to create, explore, and perform inside imaginative environments. As creative director, one of my primary focuses is creating immersive game designs that abstract our everyday thoughts and feelings. The Gossamer team also includes Nina Delucia, 3D/Texture Artist and Vincent De Tommaso, Environment Artist. Our debut game *Sole* was recently nominated for the 13th International Mobile Gaming Awards, selected to participate in the 2017 Intel University Games Showcase, and won multiple awards at the 2016 Rensselaer GameFest. We are thrilled to bring our experience designing mobile games to the *Age of Alchemy* project, which we see as a tremendous opportunity to further our mission in diversifying the mobile game marketplace with substantive aesthetic-driven gameplay experiences.

In closing, please accept this letter as proof of Gossamer Games' intent to work as the Digital Media Team for CHF's *Age of Alchemy* game project. We look forward to collaborating on this project should your NEH grant application be accepted.

Sincerely,

Thomas Sharpe, Director
Gossamer Games LLC

6. WORK SAMPLE

Gossamer Games Work Sample:

Sole: Sole is an abstract, aesthetic-driven mobile adventure where you play as the only source of light in a world shrouded in darkness. Wander through desolate environments, painting the land with light as you discover its mysterious past. Explore the remnants of great cities and uncover the history of an ancient civilization on your journey to restore life to an abandoned world. This highly anticipated debut title from Gossamer Games has been recognized as one of the top mobile games by the 13th International Mobile Gaming Awards.

URL: <http://gossamer-games.com/games/sole/>

CHF Work Sample:

Chemcrafter iPad app: Chemical reactions don't just happen—you have to make them happen. ChemCrafter lets you build your own lab to run fun and creative experiments. Use the Chem-o-Convertor to measure energy released and gain points that unlock new experiments, equipment, and chemicals. Use your new supplies to craft more gases, liquids, and solids. As your strategy guides you through experiments with water, acids, and salts, you'll create surprising color changes, encounter fire and smoke, release various gases, and shatter equipment as your achievements earn you an impressive set of trophy-room badges.

URL: <http://assets.chemheritage.org/ChemCrafter/>

Entrepreneurial Game Studio Director (Dr. Frank Lee)	Summer Salary and Fringe Benefits	70%	\$ [REDACTED]					\$ [REDACTED]
Entrepreneurial Game Studio Program Manager (to be named)	Salary and Fringe Benefits: \$ [REDACTED]	10%	\$ [REDACTED]					\$ [REDACTED]
Evaluator (Kate Haley Goldman)	Consulting Fees		\$ [REDACTED]					\$ [REDACTED]
Advisor honoraria	7 advisors @ \$500/person		\$3,500					\$3,500
								\$36,824
4. Travel								
Evaluator (Haley Goldman)	3 trips DC to Philadelphia; \$182/trip Amtrak; Hotel \$170/trip; per diem \$60/day x 2 days; \$40 taxis, parking, misc.		\$1,536					\$1,536
Advisor (Bilak)	2-day, 1 night trip; \$100 trains New York to CHF; \$302 and \$376 hotel nights and \$64 meals per diem	x 2 trips	\$667					\$667
Advisor (DeWitt)	3-day, 2 night trip; \$300 flights Norfolk, VA to CHF; \$302 and \$376 for 2 hotel nights and \$64 meals per diem	x 2 trips	\$1,406					\$1,406
Advisor (Moran)	3-day, 2 night trip; \$500 flights Reno, NV to CHF; \$302 and \$376 for 2 hotel nights and \$64 meals per diem	x 2 trips	\$1,806					\$1,806

Advisor (Newman)	3-day, 2 night trip; \$400 flights Bloomington, IN to CHF; \$302 and \$376 for 2 hotel nights and \$64 meals per diem:	x 2 trips	\$1,606					\$1,606
Advisor (Principe)	2-day, 1 night trip; \$100 trains Baltimore to CHF; \$302 and \$376 hotel nights and \$64 meals per diem	x 2 trips	\$667					\$667
Advisor (Schaller)	3-day, 2 night trip; \$200 flight St. Paul, MN to CHF; \$302 and \$376 for 2 hotel nights and \$64 meals per diem:	x 2 trips	\$1,206					\$1,206
								\$8,894
5. Supplies & Materials								
6. Services								
Gossamer Games	Design and development fees (see itemized attachment)		\$70,000					\$70,000
								\$70,000
7. Other Costs								
CHF Conference Center use, workshop 1 (remote)	2 hour meeting		\$325					\$325

CHF Conference Center use, Mid-Point Advisory Meeting (remote)	\$325/hour for 2 hours		\$325					\$325
CHF Conference Center use, workshop 2 (in person)	\$800/half day for 4 hour meeting and prototyping session		\$800					\$800
								\$1,450
8. Total Direct Costs	Per Year		\$197,420		\$0		\$0	\$197,420
9. Total Indirect Costs								
	Per Year				\$0		\$0	
10. Total Project Costs	(Direct and Indirect costs for entire project)							\$197,420
11. Project Funding	a. Requested from NEH							
							Outright:	\$100,000
							Federal Matching Funds:	\$0
							TOTAL REQUESTED FROM NEH:	\$100,000
	b. Cost Sharing							
							Applicant's Contributions:	\$97,420
							Third-Party Contributions:	\$0
							Project Income:	\$0
							Other Federal Agencies:	\$0
							TOTAL COST SHARING:	\$97,420
12. Total Project Funding								\$197,420

Total Project Costs must be equal to Total Project Funding ----> (\$197,420 = \$197,420 ?)
 Third-Party Contributions must be
 greater than or equal to Requested Federal Matching Funds ----> (\$0 ≥ \$0 ?)

8. IMAGES AND LINKS TO OTHER ASSETS

Follow the URL links below to view images, renderings, production art, and videos and to listen to audio assets associated with *Age of Alchemy*. You may need to copy and paste the links into your browser.

1. Game Environment 360: A movie file of a 360 degree view of one of the alchemist workshops modeled in 3D

(b) (4)

2. Game Renderings: Several rendered views of a 3D designed alchemist workshop and one image showing the painting and 3D modeled workshop

(b) (4)

3. Period Music: Two pieces of period music and the emblems from *Atalanta fugiens* with which they are associated

(b) (4)

4. Select Source Art: Higher definition files of some of the artworks from which the 3D modeled environments are being based

(b) (4)



AGE OF ALCHEMY: THE GOLDSMITH'S DAUGHTER

AN EXPLORATORY GAME DESIGN DOCUMENT



GOSSAMER GAMES



DREXEL UNIVERSITY
**Entrepreneurial
Game Studio**
*EnCTE Center
Expressive and Creative Interaction Technologies*

DOCUMENT OVERVIEW

This design document serves as a conceptual framework for *Age of Alchemy: The Goldsmith's Daughter*, an interactive, first-person, mobile adventure game. *Age of Alchemy* places players in London in the mid-17th century, during the “Golden Age” of alchemy; a key period in alchemy’s development as an interdisciplinary experimental pursuit.

The following content represents the project’s preliminary game design direction. During this prototyping phase, Gossamer Games in partnership with the Chemical Heritage Foundation (CHF) and the Entrepreneurial Game Studio (EGS) at Drexel University will develop and test playable mechanic demos along with an interactive game storyboard as detailed in the application narrative. The ideas in this document serve as the foundational vision for the project and will undergo several iterations in response to data gathered from monthly playtesting sessions and evaluation surveys with the public, our scholarly advisory team, and CHF humanities content specialists.

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1. NARRATIVE SUMMARY

HUMANITIES THEMES:

Age of Alchemy will create a playful and experimental path to understanding the goals and cultural importance of alchemical practice in Europe during the 1600s, on the eve of the scientific revolution. Players will undergo an experience that captures the creative essence of alchemy's quest for natural knowledge, structured around three core humanities themes:

ALCHEMY AS CROSS-DISCIPLINARY ART

Alchemy was a cross-disciplinary early modern practice dedicated to understanding the natural world, and thus crucial to histories of the science and the arts.

DIVERSITY OF ALCHEMY'S PRACTITIONERS

Alchemy was a pursuit practiced by individuals who ranged from elite "experts" to working artisans. Alchemists existed at different levels of society, traveled across geographic boundaries, and worked in and for many different communities.

WOMEN'S NETWORKS OF ALCHEMICAL PRACTICE

Women's contributions to alchemy have long been overlooked, but recent historical research has shed light on their important roles as practitioners and theorists.

Early modern alchemists were engaged in a wide array of enterprises, from mining and metalworking to dye and pigment manufacturing, to the production of chemical medicine and the study of natural phenomena. Alchemical treatises circulated knowledge across a broad spectrum of society, from artisans and tradesmen to scholars and princes. Though long mischaracterized and little understood, alchemy continues to spark the public imagination. The mystery and romance of alchemy invites curiosity, but its realities are far more compelling. *Age of Alchemy* seeks to put CHF's interrelated collections of paintings, prints, and manuscripts in dialogue with one another in an accessible format, allowing players to step into the past and experience early modern, empirical knowledge-making.

1) ALCHEMY AS CROSS-DISCIPLINARY ENDEAVOR

Players of *Age of Alchemy* will experience a past world in which alchemists were not only chemical workers, but often authors and poets, composers, theorists and theologians, physicians, artists, and artisans. Their work encompassed technical skill, research and writing, experimental and creative labor. Activities that are today divided into the fields of philosophy, medicine, mining, metallurgy, and industrial chemistry could all fall under the early modern rubric of alchemy (also called “chymistry”). *Age of Alchemy* will present the diversity of alchemical pursuits and invite players to consider an early modern worldview in which art and science are inextricably connected.

Age of Alchemy has five levels, each of which centers on a specific alchemical experiment and key figure. These levels explore the different practices connected with alchemy during the 1600s, including chrysopoeia (attempts at gold-making), distillation (the art of reducing a substance to essence), iatrochemistry (the production of chemical medicines), assaying (the evaluation and working of metallic ores), and urinoscopy (the medical study of urine for diagnosis). The combination of immersive imagery and hands-on experimentation emphasizes early modern artistic portrayals of alchemy as more than pictures of a vanished world: players will find in this art pathways to experience a shared cultural history of artistry and experimental ideas.

The game explores art and alchemy’s shared practical relationship in the early modern period, as many artists’ materials were manufactured via alchemy, including pigments and dyes, effects in glassmaking and printmaking, and metal alloys for sculpture and ornament. In turn,



Art and science mingle in “*The Alchemist*,” by Mattheus van Helmont (1623-1679), CHF collections.

artistic representations of alchemy which popularized and familiarized this emerging empirical science will be explored as players literally enter the setting of many of CHF’s alchemical paintings.

Crucially, the rendered environments of the game will be drawn from CHF’s collections of paintings and works on paper. The artistic portrayals of alchemists are central to the game’s interpretive framework. From serious to satirical representations, the visual culture of the 1600s in Europe experienced a profusion of alchemical imagery, particularly in the Netherlands, Germany, and England. Paintings and prints of alchemists are by no means “photographic snapshots” of early modern alchemical practice. Neither are they exclusively negative indictments of alchemy. These images, because of their diversity and artistic license, offer insight into the different perspectives that early modern people held about alchemy. Players will be invited to shift their perspective on alchemy as their visual experience shifts from virtual room to virtual room and they learn about the often conflicting viewpoints about alchemy that were held by historical actors in the social world of Europe in the 1600s.

2) DIVERSITY OF ALCHEMY'S PRACTITIONERS

Players will explore *Age of Alchemy*'s historical and interpretive content through five successive levels of gamepla , each advancing the overarching narrative of Viola's quest to establish herself as an alchemist. Through her viewpoint, players will experience the environments of alchemical practice in 1600s England and the interconnected practices of art-making, craft, medicine, philosophy, and music. Recent research on the history of alchemy has revealed the diversity of its practitioners, theorists, and patrons. The most public and well-known alchemical figures in the early modern era have, up to very recently, been the royal and elite patrons who invested spectacular resources in large, factory-like laboratories.

Yet, middle and working-class individuals and groups also practiced alchemy in much more modest domestic contexts. Alchemical experimentation could offer a way to earn income and gain reputation for people on the margins of European society. More recent thinking about the history of alchemy, stemming from work by scholars Moran, Principe, and Smith, has expanded to reconsider artisans and craftspeople as critically engaged in alchemical pursuits, particularly in professions such as goldsmiths and vernacular apothecaries. Players, through Viola's narrative arc, will encounter sites of domestic or "household" alchemy, where husbands, wives, and children worked side-by-side in the preparation of alchemical materials and in conducting experiments. By focusing on a merchant-class central character, *Age of Alchemy* will allow players to traverse the different levels of society in which alchemy operated, from humble artisanal shops to royal courts. Through the barriers that the Viola faces, players will gain insight into the classed, racialized, and gendered contexts for alchemical practice.



An alchemist works in the background of this middle-class family kitchen space in this work by Thomas Wijck (1616-1677), CHF collections.

3) WOMEN'S NETWORKS OF ALCHEMICAL PRACTICE

The character of Viola invites game players to delve into the still little-understood and under-interpreted role of women alchemical practitioners. By nature of its trade secrets and focus on clandestine knowledge, alchemical pursuits could generate intimate communities of knowledge in which women could converse with, debate, and collaborate with other women and men. Like much scholarly research, however, the truth of women's participation in alchemical work has yet to filter into the popular imagination. *Age of Alchemy* will help to bridge this gap by offering an immersive and accessible story rooted in humanities scholarship.

Players will have the opportunity to read and gain valuable information from actual early modern alchemical texts, both practical and symbolic. The game breaks down the complicated and complex allegories of alchemical symbolism through exploration of philosophical alchemical books. One of the philosophic explorations will feature the significant gendered elements of some alchemical symbolism. Certain theories regarding the alchemical quest to “perfect” nature displayed uniquely fluid concepts of gender. In conflict with older Aristotelian concepts of gender that portrayed the male as the highest and most perfect form, many early modern alchemical treatises described the merging of male and female halves together as necessary in creating a perfected humanity and a purified nature.

Artists and manuscript illustrators adopted a wide variety of male and female forms to picture these processes, many of which will be featured in the game. As Viola advances in her journey, players will interact



In a modest workshop, husband and wife collaborate on an experiment in this copy after a painting by David Ryckaerts III (1612-1661), CHF collections.

with the gendered aspects of alchemical philosophical and spiritual symbolism as well as the practical position of female alchemists in the mid-1600s.

This focus on a female character also allows us to showcase artworks from the CHF collections that depict women engaged in alchemical practice, from reading recipes, to manipulating materials, to supporting the household laboratory or workshop. At times, women also play the role of the voice of reason in satirical pictures depicting alchemy as a fool's errand. In *Age of Alchemy*, we will be able to nuance these naturalistic or humorous artistic portrayals of women's involvement in alchemy from a historically grounded perspective. The game will explore questions such as why wives were often pictured as disapproving of their husband's alchemical pursuits and the household labors and financial hardships that sometimes lay beneath the search for alchemical success.

DESIGN METHODOLOGY

To incorporate these themes, *Age of Alchemy* has adopted several key game design principles. To reinforce the role-playing nature of the game's narrative and build immersion, players will see the world from a first-person perspective. This will allow players to step into the game world and explore and discover the detailed environments as if they were actually there.

The emotional immediacy of first-person games supports our desire for *Age of Alchemy* to build empathy for past historical actors and develop an understanding of the early modern mindset—one that believed in both empirical research and transmutative possibility. Individuals who engaged with alchemy weren't simply fools or greedy charlatans; they were entrepreneurs, experimenters, teachers, and artists. Players will have the opportunity to interact with these characters by engaging in conversations and hearing their unique perspectives.

Age of Alchemy uses a branching narrative tree that engages players in making choices that impact later gameplay. Throughout the game, players are prompted to make decisions that influence the progression of their avatar Viola. For example, early in the game, players will make a decision that may lead to Viola acquiring her mother's book of secrets. This book can be used in later levels to diagnose medical illnesses. Should the player not collect the book, they must find an alternate method of obtaining the information. By allowing players to make decisions about Viola's actions in the game, they create a sense of intimacy that builds empathy with the protagonist while exploring the moral and intellectual dynamics of the period.

While interactions with other characters support the narrative themes of the game, the majority of the play experience is comprised of exploring the game world. Drawing inspiration from classic adventure game design, players are tasked with finding and using objects scattered around each scene. This approach encourages players to perform a close examination of their surroundings as each space has gameplay utility instead of simply acting as a backdrop for the game's story.

Unlike many traditional game designs, there is no explicit failure or lose conditions in *Age of Alchemy*. Instead, players are invited to explore and experiment at their own pace. Though players are required to complete a specific series of actions to progress through the game, there are no explicit fail states that cause players to lose progress. This reinforces and encourages players to immerse themselves in the game world without pressure or danger.

NARRATIVE OVERVIEW

STORY PROGRESSION

Viola is the game's fictional protagonist. She is a young woman living in London during the mid-1600s. The daughter of a goldsmith, Viola has grown up immersed in workshop experimentation and the alchemical pursuits related to metallurgical practice. Viola longs for the day she can take over her father's shop and test out her own alchemical ideas. At the start of the game, Viola discovers that her father is planning to marry her off to a man who will then inherit the goldsmith workshop, leaving her cut off from any avenues to advance her own alchemical interests. Taking huge risks, Viola decides to trick her father, escape from her impending marriage, and set out on a series of quests to pursue becoming an alchemist in her own right, encountering many obstacles along the way. In *Age of Alchemy*, the player assumes the role of this budding young alchemist and follows her journey through the golden age of alchemy.

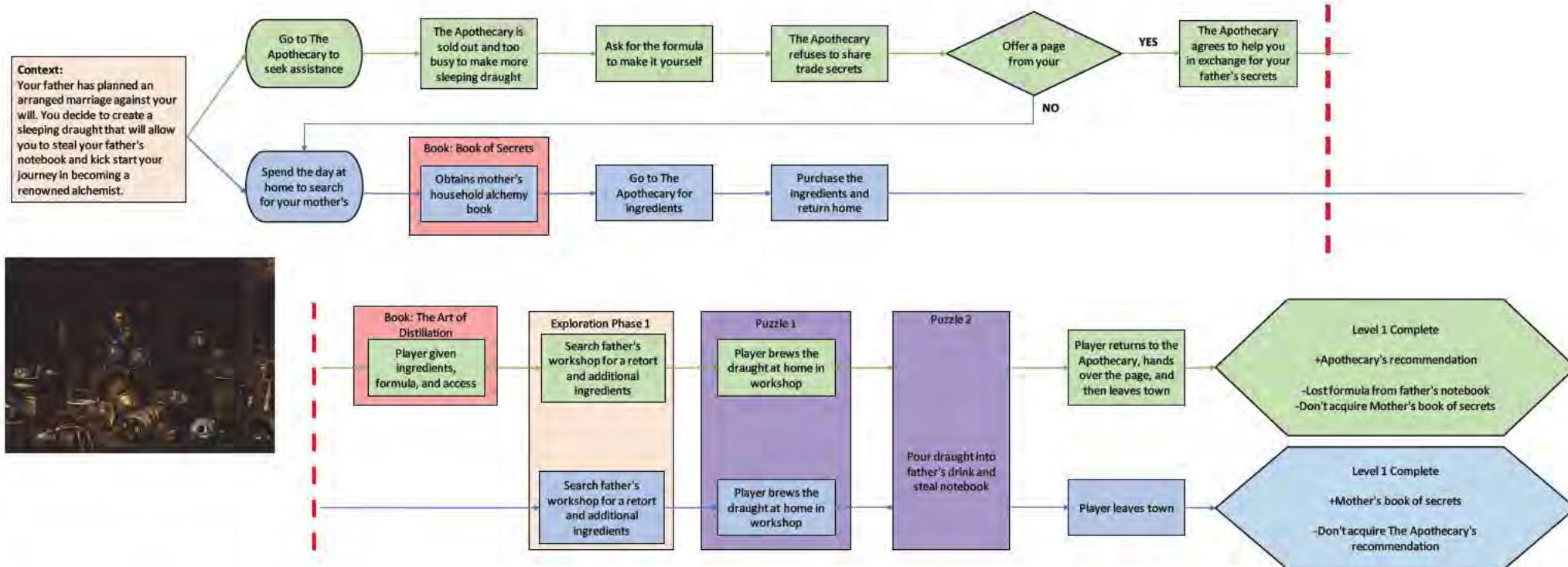
NARRATIVE AGENCY

The story of *Age of Alchemy* has been designed as a narrative tree that provides players with agency. Throughout the game, players are prompted to make decisions about overcoming various obstacles that influence the progression of their avatar Viola. This use of agency creates a sense of intimacy that builds empathy with the protagonist while exploring the moral and intellectual dynamics of the period.

CONTENT STRUCTURE

Age of Alchemy is structured as collection of vignettes modeled after the source paintings and historical events. The content of the game will be divided into five levels, each centering around a specific alchemical experiment and key figure. The gameplay and narrative content have been designed modularly and allow for further expansion to explore additional themes and areas of alchemy given additional funding and resources.

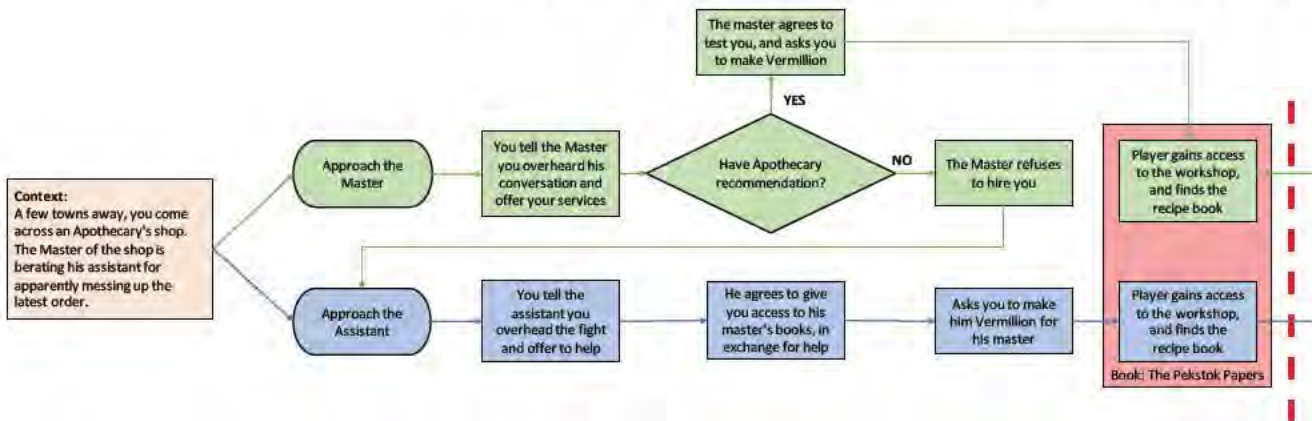
LEVEL 1 NARRATIVE FLOW



LEVEL 1 NARRATIVE SYNOPSIS

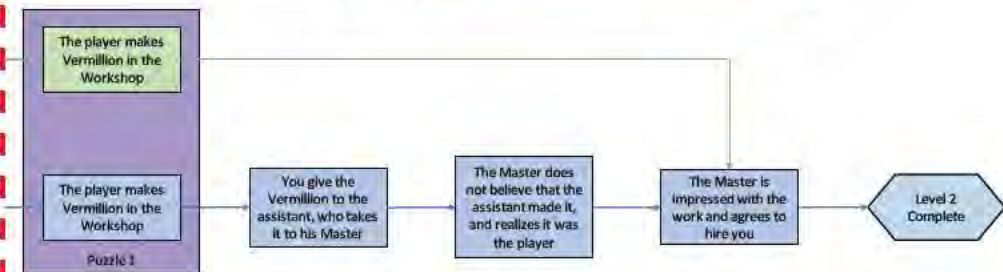
Viola's father has planned an arranged marriage against her will! Eager to begin her journey to become a renowned alchemist, she decides to create a sleeping draught that will allow her to steal her father's notebook of trade secrets and leave home. At the start of the level, the player is prompted with a decision to either stay home to look for a recipe for a sleeping draught, or go straight to an apothecary to seek help. If the player chooses to go to the apothecary first, they will have the option to barter with him for the sleeping draught recipe, with a promise to return with a page from their father's notebook, or refuse and return home to search the house. If the player chooses to search the house, they will find their mother's notebook containing the recipe and will go to the apothecary to acquire the ingredients. Upon their return home, the player will have to decipher the writing in the recipe, then collect the necessary equipment from their father's workshop to brew the sleeping draught. The player will then administer the draught to their father, gaining his book. If the player opted to barter with the apothecary, they will then lose one recipe from the book.

LEVEL 2 NARRATIVE FLOW

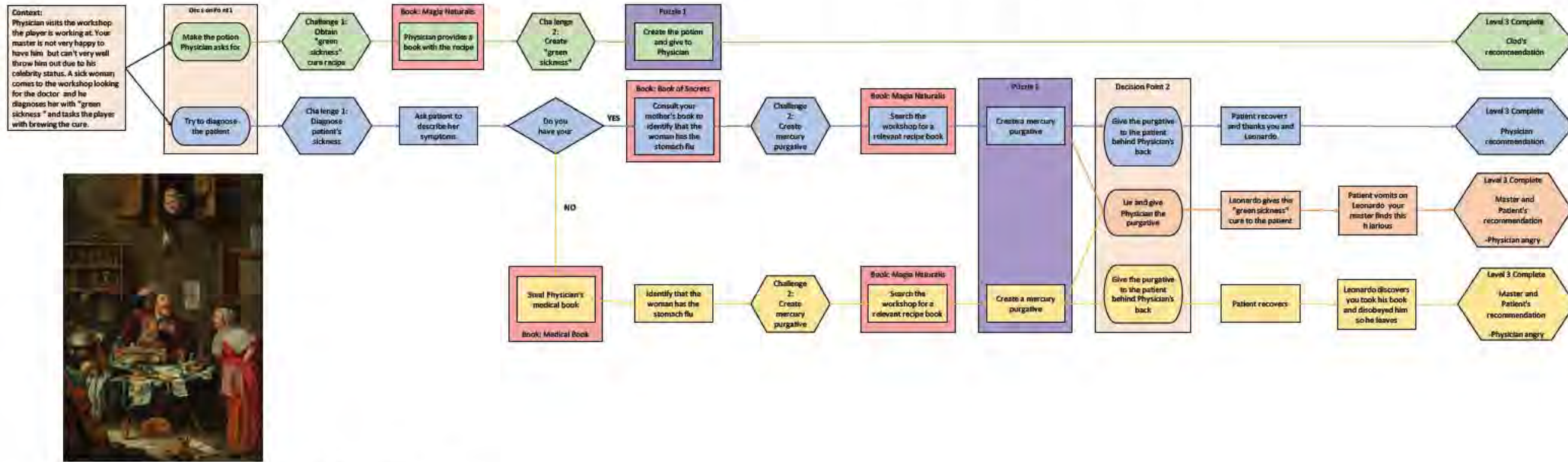


LEVEL 2 NARRATIVE SYNOPSIS

Viola travels to a distant town, and begins searching for employment. Upon arriving at the town's apothecary, she sees the master berating his assistant outside the shop. She overhears that the assistant botched an order for pigment for an important client, and the master is furious. The player then has a choice to either approach the master or the assistant and offer their services. If the player chooses to approach the master, Viola offers her services as a replacement for his incompetent assistant. If the player has the recommendation from the pharmacist, the master will reluctantly agree to hire her. However, if the player does not, the master will not believe Viola's credentials and refuse. The master must then leave to take care of other business, and leaves the player or his apprentice in charge of the shop, depending on if he hired the player or not. If the player chooses to approach the assistant from the start, or was rejected by the master, Viola will offer her assistance to the apprentice in an effort to get him back into his master's good graces. In exchange, Viola requests access to the apothecary's notes and books, to which the apprentice agrees. Either way, the player is tasked with making vermillion before the master returns. The player is now free to explore the apothecary's workshop, find the relevant manuscripts, ingredients, and equipment, and create the pigment. Upon the master's return, if Viola was hired from the start, the master will be pleased and agree to hire Viola as his new apprentice. If the player assisted the old apprentice, the assistant will present the vermillion to the master, who after inspecting it, will not believe it was the assistant's work. The master will demand the truth, and the apprentice will reveal that Viola made the vermillion. After dismissing the apprentice, the master will agree to hire Viola as his assistant.



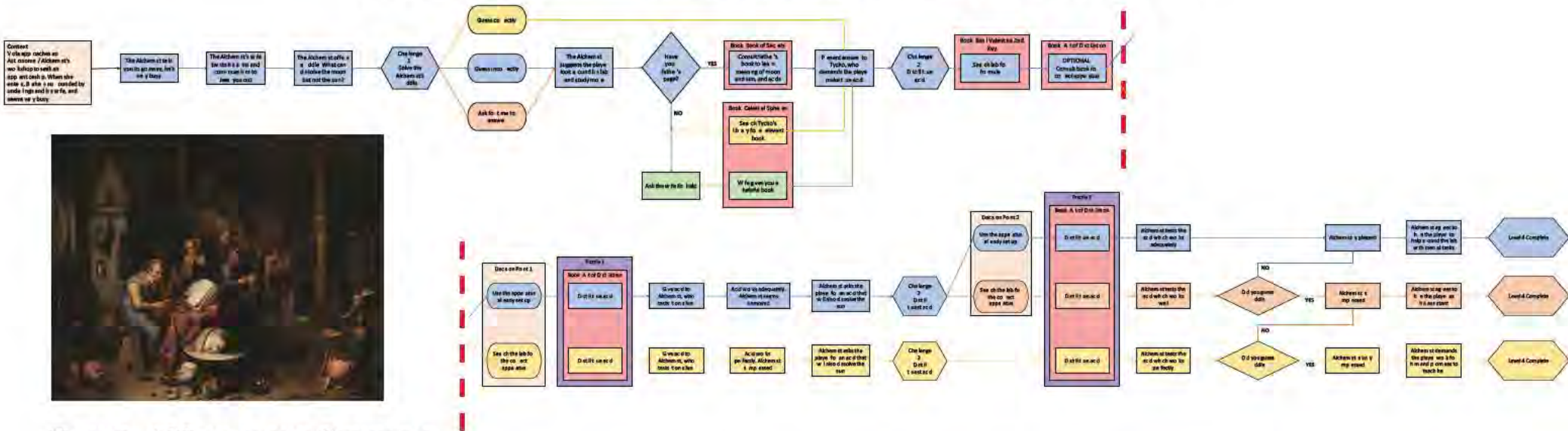
LEVEL 3 NARRATIVE FLOW



LEVEL 3 NARRATIVE SYNOPSIS

A well known physician visits the Apothecary shop where Viola works (the physician's character will be tested during the prototype phase, and will draw on historical figures such as Frederick Clod, 1625-ca.1661). Viola's master is unhappy about the visit, as he is afraid the physician will be a distraction from his work, but cannot turn away such a prestigious visitor. A female patient visits the apothecary shop, and complains of malaise, nausea, and has a greenish pallor. The physician diagnoses this patient with "green sickness" (a sickness commonly associated with young virginal women and historically linked with concepts of "lovesickness" and women's sexuality). Viola is faced with the decision to either go along with the physician's diagnosis, or choose to seek a diagnosis and cure the patient on her own. If players trust the physician's diagnosis, they are given the recipe for and must brew a green sickness potion to administer to the patient. Doing this will please the esteemed physician, but administering the potion will cause the patient to become more ill. If players choose to diagnose the patient themselves, they will need to locate a book to assist them in identifying the disease. If players have their mother's book of secrets from Level 1, they can recognize the patient's ailment as a stomach flu. If not, players must take one of the physician's books to reach the same conclusion. Players will then have the opportunity to create a mercury purgative and a choice to either present it to the physician and claim it is what he asked for, or to administer it to the patient directly. Players' choice to trust the physician's diagnosis, strike out on their own, steal his books, or give the purgative directly to the patient will influence the physician's reaction and determine whether or not they acquire his recommendation at the end of the level.

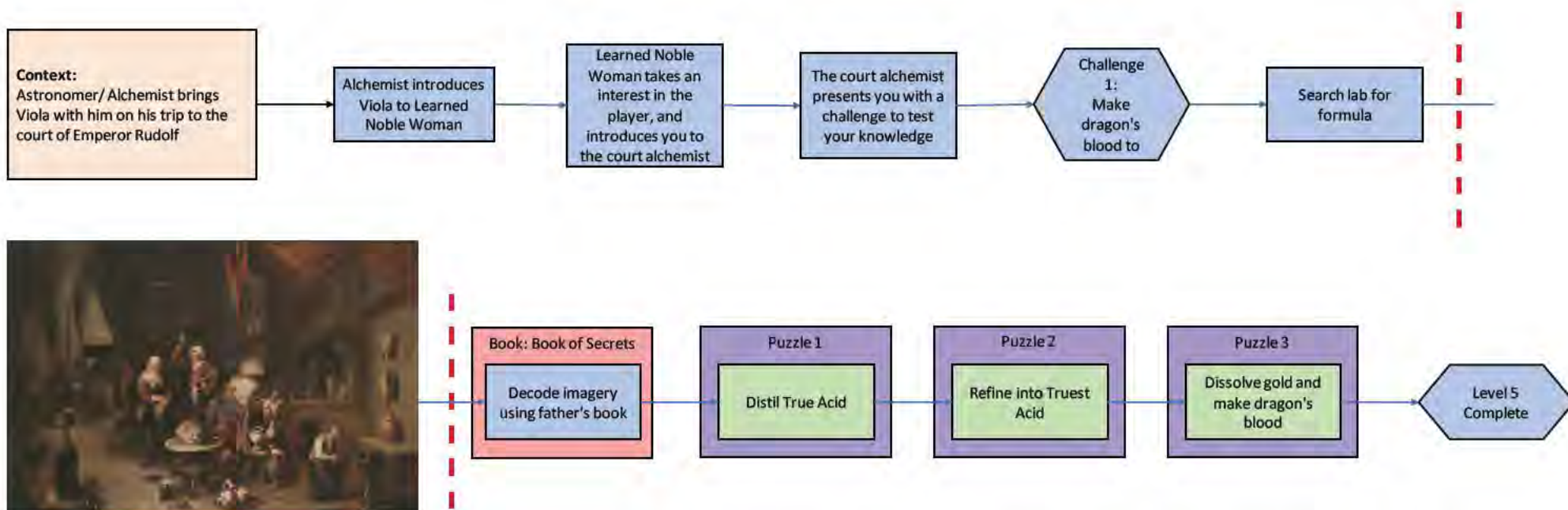
LEVEL 4 NARRATIVE FLOW



LEVEL 4 NARRATIVE SYNOPSIS

Having learned all she could while working for the Apothecary, Viola travels to the city in search of new opportunities. There, Viola comes upon the workshop of a famous astronomer and alchemist and asks for a job. The Astronomer/Alchemist refuses to offer a test until his wife intervenes. His wife plays upon that experience in order to persuade him to have sympathy for Viola and give her a chance to take the test. Either way, he poses a riddle to Viola as a test: “What can dissolve the moon, but not the sun?” Players are now free to explore the workshop, consult their notes, or guess the answer. If players did not lose a page of Viola’s father’s notebook to the pharmacist in Level 1, players will have the answer in their notebook. Otherwise, players will have to search the workshop for the manuscript with the answer, or ask the Astronomer/Alchemist’s wife for further assistance in locating the book. Once the player presents the Astronomer/Alchemist with the correct answer, “True Acid,” he will demand that the player produce this chemical. The player will then search the workshop to find Basil Valentine’s Second Key, which they can interpret to obtain the formula for True Acid. After consulting the *Art of Distillation*, a text acquired in the first level, the player will have all the information they need to create True Acid in the workshop. The Astronomer/Alchemist’s workshop will have a distillation apparatus ready to use; however, consulting the *Art of Distillation* will reveal there is a more efficient equipment option. The player has the choice to use the equipment that’s already set up, or search the workshop for the better apparatus. This choice will affect how impressed the Astronomer/Alchemist is at the end of the level, which will be reflected in the tone of his responses to players. Upon presenting the True Acid to him, players will be presented with another riddle. The Astronomer/Alchemist demands, “Now make me something that can dissolve the sun too!” Again, players can consult Basil Valentine’s Key for the recipe for Aqua Regia, and then proceed to make it. When presented with the Aqua Regia, the Alchemist/Astronomer is impressed and agrees to hire the player as an assistant.

LEVEL 5 NARRATIVE FLOW



LEVEL 5 NARRATIVE SYNOPSIS

The Astronomer/Alchemist from Level 4 brings Viola with him on a trip to a courtly setting outside of London. The final geographic location will be tested during the prototype phase, drawing on examples such as the court of Christina (1626-1689), formerly Queen of Sweden, who set up a court in Rome after abdicating her throne, or the court of Frederick III of Denmark (1609-1670), who employed court alchemist Giuseppe Francesco Borri. At the courtly setting, the Astronomer/Alchemist introduces Viola to a Learned Noble Woman, who is interested in alchemy and takes a liking to Viola. The Learned Noble Woman introduces Viola to the Court Alchemist, and asks him to test the player. The court alchemist tasks the player with the seemingly impossible test of creating Dragon's Blood, one of the ingredients for the philosopher's stone. Using the knowledge acquired through the previous levels, along with Basil Valentine's Third Key, which can be found in the court workshop, the player has all the information they need to create Dragon's Blood. After presenting the item to the alchemist and the Learned Noble Woman, she agrees to take the player on as one of her handmaids, so that the player may assist her with her alchemical experiments.

2. USER EXPERIENCE

USER EXPERIENCE OBJECTIVES

Moving beyond the scholarly page, and outside museum walls, *Age of Alchemy* offers a new approach to telling the story of alchemy and its impact on our world. The five levels of the game will bridge the history of scientific inquiry with humanities approaches drawn from art history and material culture, to generate a new, accessible, and creative means of engaging public audiences with vital stories of inspiration, transformation, and experiment. Through Viola's eyes, players will be plunged into the diverse arenas of laboratories, workshops, apothecaries, and homes, all sites of material experimentation and practice in England during the mid-1600s.

The game is structured to accommodate varied levels of knowledge, interest, and attention, utilizing a robust help system to aid in the step-by-step learning, decoding, translating, and problem-solving required to advance in the game. CHF and Gossamer Games' goal is to use this prototype phase to determine the aspects of Viola's narrative that players find most compelling, using the results of testing to refine the module's narrative arc and details.

Age of Alchemy utilizes the strengths of the video game medium by inviting players to interact directly with source materials through play, gaining a new understanding of the subject through storytelling and roleplay, and exploring details environment that are just as striking as their reference artworks. The various actions involved in conducting alchemical experimentation translate naturally to a medium where discovery through play serves as the core appeal.

KEY DESIGN DECISIONS

In-Game Hints

Experimentation and exploration lie at the heart of *Age of Alchemy*'s gameplay. As such, an in-game hint system is essential to ensuring players do not quit out of frustration or confusion. Drawing inspiration from *The Room* game franchise, *Age of Alchemy* includes an in-game hint system that provides players with incremental clues for each step of the sequence found in Viola's journal. These clues are delivered in increasingly straightforward ways, gently pushing players in the right direction without stripping their sense of satisfaction in discovering the correct solution. In this way, players of varying skill levels will have an evenly paced gameplay experience filled with surprising discoveries and "aha!" moments.

Novel Device Interactions

One of the core game dynamics in *Age of Alchemy* is experimentation. To ensure interactions with laboratory equipment feel tactile and satisfying, the game employs novel interfaces for object use and manipulation. For example, to pour liquid from one vessel to another, players will need to physically rotate their whole device to simulate the pouring action (instead of simply clicking or swiping). These unique interfaces will incorporate an element of experimentation into the physical interactions with laboratory equipment. This design is essential to capturing the experience of conducting an actual alchemical process.

ENVIRONMENT TRANSLATION



David Teniers the Younger, 'Alchemist in his Workplace', ca. 1650



Translated environment render

The comparison above illustrates how the composition of the source material could translate into an interactive 3D environment for players to explore.

GAME DESIGN DYNAMICS

GAME DYNAMICS

In video game design, dynamics are the ways in which players interact with a game's mechanics. Where the mechanics, or rules, of chess dictate how a knight can move across the board, the dynamics of chess encompass the strategies players employ while moving the knight. *Age of Alchemy* employs three core dynamics for players to interact with the game world:



EXPLORATION

Players are invited to step into detailed alchemical laboratories and explore the workspace, poking around the virtual environment in search of useful tools and ingredients they can use to conduct experiments. This mechanic mirrors alchemical practitioners' exploration of the natural world's material properties.



INTERPRETATION

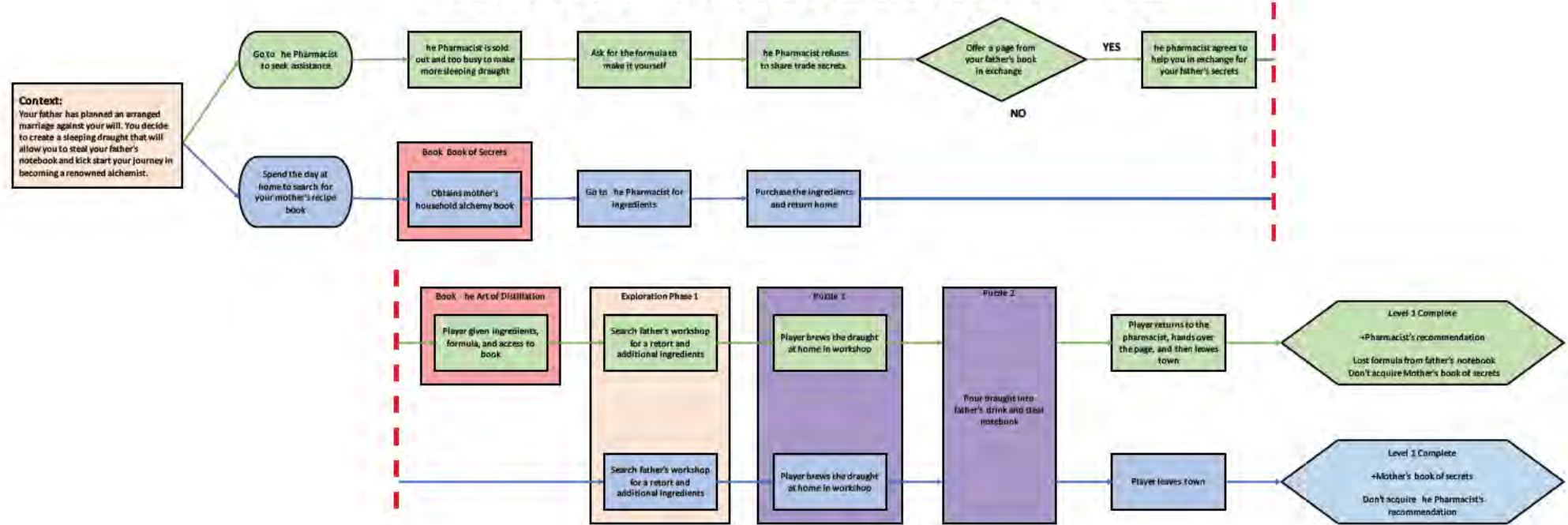
At the heart of alchemy lies a vast collection of manuscripts outlining various metallurgic and medicinal scientific experiments. However, many of these documents were encoded in allegorical writing and imagery to protect trade secrets. Players are tasked with decrypting these documents to understand the steps of each experiment, much as an alchemical practitioner would have needed to interpret and master key texts.



EXPERIMENTATION

Success in alchemy depended in part on skillful manipulation of available tools and process. Once players have revealed the experimental process and collected the required equipment and ingredients, they can begin combining elements and creating chemical reactions. How well players have interpreted the lab manuscripts will determine whether their experiment succeeds or fails.

LEVEL WALKTHROUGH



LEVEL 1 WALKTHROUGH

The following is a granular walkthrough of the proposed first level of *Age of Alchemy*. Each frame represents the ideal next step to progress through the level as quickly as possible. While the specific content of this sequence is subject to change, the storyboard is representative of how exploration, interpretation, experimentation, and narrative are intertwined to form an engaging gameplay experience.

NARRATIVE CONTEXT

At the beginning of the game, our protagonist Viola is preparing to run away from home after her father has moved forward in planning an arranged marriage against her will. Viola realizes it is time to leave home and pursue her interests in alchemy. She decides to create a sleeping draught that she can administer in her father's dinner. With her father safely asleep, Viola will be free to steal her father's notebook of metallurgy research and begin her journey to become a renowned alchemist.

NARRATIVE BRANCHES

The level opens with a narrative branch that will alter the player's progression through the scene. In this illustration, the green branch will be noted as "Branch A" and the blue as "Branch B." Any unmarked content is shared between both branches.

STORYBOARD FRAME 1



At the beginning of the level, Viola must acquire a sleeping draught recipe. The player must decide to search the house first, or go straight to the pharmacist

DECISION 1 - BRANCH A

STORYBOARD FRAME 2A-1



If the player opts to go straight to the apothecary, they learn he is out of sleeping draught but is willing to sell the recipe and ingredients in exchange for a page from Viola’s father’s notebook. If the player agrees, they proceed to frame 2A-2. Otherwise, they proceed to 2B-1.

STORYBOARD FRAME 2A-2



Viola agrees and players receive the sleeping draught recipe and ingredients.

Figure of Apothecary adapted from Italian School, “*Alchemist Filling Wet Drug Jars*,” 17th century, CHF collections.

DECISION 1 - BRANCH B

STORYBOARD FRAME 2B-1



Viola searches the house and finds her mother's notebook containing a recipe for sleeping draught. The player determines that there are a few ingredients required for the draught that cannot be found in the house.

STORYBOARD FRAME 2B-2



Viola goes to the apothecary and buys the ingredients to make the sleeping draught.

STORYBOARD FRAME 3



Viola returns home to the kitchen and must consult the recipe to make sure she has all the ingredients.

STORYBOARD FRAME 4



Player is tasked with translating the source material (left) into a more straightforward analysis in Viola's journal (right).

STORYBOARD FRAME 5



Player drags and drops pieces of information from the source text into Viola's journal where the information is translated into modern English.

STORYBOARD FRAME 6



With the simplified list of ingredients and sleeping draught recipe, Viola needs to find the remaining ingredients around the house.

STORYBOARD FRAME 7



Player taps on the head of lettuce to add it to their inventory.

STORYBOARD FRAME 8



Player taps on the bookshelf for a closer look at its content.

STORYBOARD FRAME 9



Player taps on the jar of sugar to add it to their inventory.

STORYBOARD FRAME 10



Player moves from the kitchen room into the workshop.

STORYBOARD FRAME 11



Player taps on the bookshelf for a closer look at its content.

STORYBOARD FRAME 12



Player must now translate instructions for assembling a distillation apparatus.

STORYBOARD FRAME 13



Player drags and drops pieces of information from the diagram into Viola's journal, creating a simplified set of instructions

STORYBOARD FRAME 14



With the knowledge of distillation, Viola needs to collect a retort to begin the experiment.

STORYBOARD FRAME 15



Player taps on the retort to add it to their inventory.

STORYBOARD FRAME 16



Player moves back into the kitchen.

STORYBOARD FRAME 17



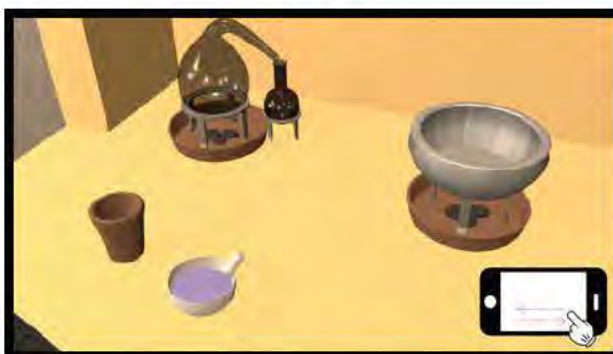
Player taps on the kitchen stove and places the retort. This will allow them to begin the experimentation process.

STORYBOARD FRAME 18



Player drags the poppy seed into the mortar.

STORYBOARD FRAME 19



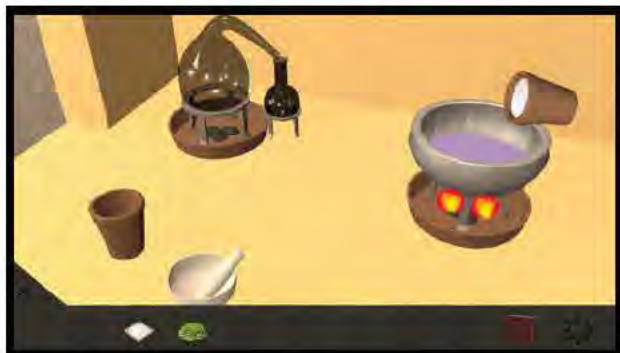
Player is prompted to swipe left and right to grind the poppy seeds and add water.

STORYBOARD FRAME 20



Player pours the poppy seed mixture into the bowl and is prompted to strike a fire by quickly swiping across the screen.

STORYBOARD FRAME 21



Player adds sugar to the mixture to create a poppy seed syrup.

STORYBOARD FRAME 22



Player drags lettuce into the mortar.

STORYBOARD FRAME 23



Player grinds the lettuce and adds water.

STORYBOARD FRAME 24



Player pours the poppyseed syrup into the retort.

STORYBOARD FRAME 25



Player pours the lettuce water into the bowl.

STORYBOARD FRAME 26



Player adds saltpeter to the lettuce water.

STORYBOARD FRAME 27



Player adds the lettuce water to the poppy seed syrup and strikes a fire under the retort. Player waits for the sleeping draught to be distilled.

STORYBOARD FRAME 28



Player has successfully created a sleeping draught.

STORYBOARD FRAME 29



Viola enters her father's room. The player must decide how she presents the draught.

STORYBOARD FRAME 30



Viola's father happily accepts the sleeping draught.

STORYBOARD FRAME 31



Viola waits for her father to drink the sleeping draught.

Figure adapted from Justus Juncker, "The Village Chemist," CHF collections.

INTERPRETIVE TEXTS

PRIMARY SOURCE DOCUMENTS

The game is designed to prominently feature the collection of paintings and manuscripts housed at the Chemical Heritage Foundation. By designing the project's gameplay around source texts, players are encouraged to engage with the material through novel interactions. Detailed below are the three core methods the game incorporates these sources directly into the playing experience.



PAINTINGS

In each level players are invited to explore rooms that serve as 3D recreations of the environments depicted in the source paintings. This provides a unique feeling of “stepping into” each painting and seeing the work from a different perspective.



MANUSCRIPTS

The game also lets players interact directly with the interpretive texts by incorporating alchemical manuscripts into the game's puzzle design.



PERIOD MUSIC

The game incorporates recordings of period music compositions that accompanied alchemical texts. Exposing players to music in the game will enhance the experience and will help players understand that alchemy was a cross-disciplinary pursuit that could combine music, poetry, art, and experimental theory.

3. TECHNICAL SPECIFICATIONS



UNITY 3D GAME ENGINE

The game will be built in the Unity3D game engine and developed for iOS and Android phones and tablets and optimized for devices released after 2014. As one of the most accessible commercial game engines, Unity3D is well supported by all major gaming hardware manufacturers. This allows games made with Unity3D to be easily updated for compatibility with new operating system versions and platform features. It also decreases the resources needed from cross-platform development since the engine has been designed to easily compile projects across each of the most popular gaming devices.

ENGINE BENEFITS

As a result of the high adoption rate among professional developers, a vast collection of troubleshooting resources and development tools have been generated that allow the Unity3D engine to be customized and extended to optimize the production workflow on an individual project basis. This will allow the Gossamer team to customize the editor interface and create valuable debugging tools tailored to the specific needs of the *Age of Alchemy* game.

USER GENERATED CONTENT

Due to the target platforms and overall design of the project, we do not anticipate any user-generated content.

4. SUSTAINABILITY PLAN

MAINTAINING *AGE OF ALCHEMY*

As noted in the Technical Specifications section, our game will be built using the Unity3D game engine. This software tool is already an industry standard tool that has both robust documentation, support, and frequent version updates. We intend to update the game to the most current software versions throughout the lifecycle of this project, avoiding any potential security issues or bugs. Patches to the game will be published through the application stores for both iOS and Android.

By using Unity and third-party Unity plugins, rather than creating our own game engine or plugins, the Gossamer team is able to leverage the latest in game development technology to save both on development time and costs. Unity3D allows us to create modular elements that can be repurposed for use throughout the game, and gives us the ability to add additional narrative modules with relative ease.

MonoDevelop, Unity's proprietary scripting program, allows us to create and reuse custom scripts throughout our game. The Unity software emphasizes the extensibility of elements of code and game assets, more opportunities to utilize the mechanics and assets developed for this game in additional narrative modes and, possibly to extend the game to include information about other regions and time periods in subsequent modules, for instance the early modern Atlantic World or Asia, with the collaboration of other institutions with significant holdings in these areas.

We hope to use the prototype developed in this phase of this project to pursue additional funding sources to build a commercially releasable version of the game. We believe that it will take an additional 12-18 months of development to bring about a version of the game that is ready for a commercial release.

This final version of the game would be made available through Android application marketplaces, Google Play, and the Apple App Store.

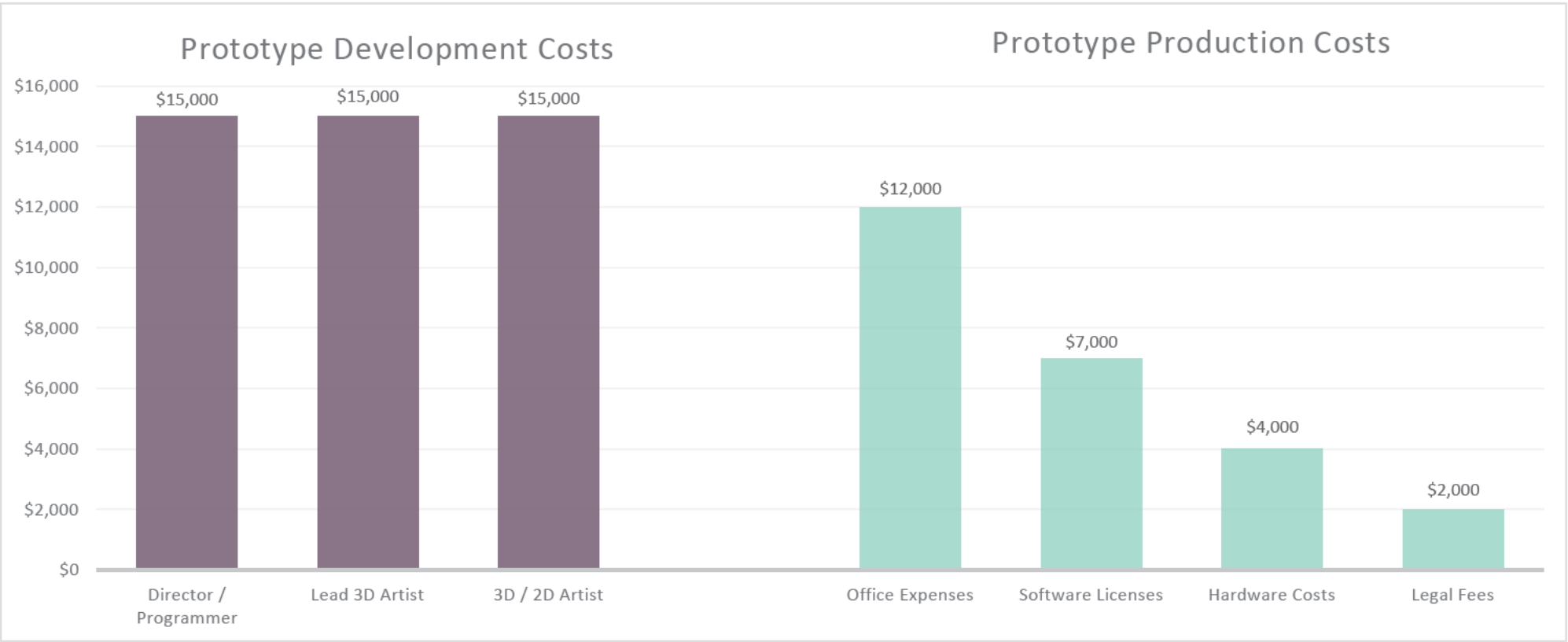
Once the final version of the game is released, we anticipate moderate upkeep costs (\$2,000 - \$5,000 annually) associated with updating the software to run on the latest mobile devices, while still maintaining a reasonable degree of backwards-compatibility. Developing a plan to fund these maintenance costs will be part of future production work.

Age of Alchemy - Gossamer Budget

Prototype Development Costs

Item	Design Costs
Director / Programmer	\$15,000.00
Lead 3D Artist	\$15,000.00
3D / 2D Artist	\$15,000.00
Prototype Production Costs	
Office Expenses	\$12,000.00
Software Licenses	\$7,000.00
Hardware Costs	\$4,000.00
Legal Fees	\$2,000.00
Total	\$70,000.00

Age of Alchemy Prototype Development Costs



NEH Application Cover Sheet

Digital Projects for the Public

PROJECT DIRECTOR

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USA

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Phone(h): 213 740-6981

Phone(h):

Fax:

Field of expertise: Media Studies

INSTITUTION

University of Southern California
Los Angeles, CA USA

APPLICATION INFORMATION

Title: *Walden, a game*

Grant period: From 1/1/2015 to 12/31/2015

Project field(s): American Literature; U.S. History

Description of project: Prototype for a unique video game based on the writings the American author Henry David Thoreau at Walden Pond. Designed and directed by game designer Tracy Fullerton, *Walden*, a game, will simulate the experiment in living made by Thoreau at Walden Pond in 1845-47, allowing players to walk in his virtual footsteps, attend to the tasks of living a self-reliant existence, discover in the beauty of a virtual landscape the ideas and writings of this unique philosopher, and cultivate through the game play their own thoughts and responses to the concepts discovered there. The humanities content of the game will focus on an interactive translation of Thoreau's writings and will also include references to the historical context of those writings. The game takes place in the environment of 1845 New England, when new technologies such as the railroad, the telegraph were first being seen and were part of the changes to pace of life that Thoreau so articulately resisted in critiques of society.

BUDGET

Outright Request	100,000.00	Cost Sharing	37,292.00
Matching Request	0.00	Total Budget	137,292.00
Total NEH	100,000.00		

GRANT ADMINISTRATOR

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Fax:

Proposal for NEH Digital Projects for the Public: Walden, a game

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Letters of Commitment/CV's for Advisors:

Jeffrey S. Cramer, Thoreau Institute
William Deverell, Chair, USC History Dept.
Daniel Lewis, Chief Curator of Manuscripts, The Huntington Library
Susan Foster Jones, Director of Education, Concord Museum
Pablo Fasconi, Film Director, *The Light at Walden*
Michael Sweet, Berklee College of Music

Resumes for Media Team:

Tracy Fullerton, Game Director
Todd Furmanski, Lead Programmer
Kurosh ValaNejad, Art Director
Lucas Peterson, 3D Artist
Michael Sweet, Audio Director and Composer
Alex Matthew, Designer/Programmer
Logan Ver Hoef, Designer/Programmer

05: Work Samples

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Walden, a game walkthrough (in progress)

Screenshots from Walden, a game (in progress)

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Application Narrative for *Walden, a game*

A) Nature of the request

The Game Innovation Lab at the University of Southern California is seeking support for a prototype of a unique video game based on the writings Henry David Thoreau at Walden Pond. Directed by Tracy Fullerton, *Walden, a game*, will simulate the experiment in living made by Thoreau at Walden Pond in 1845-47, allowing players to walk in his virtual footsteps, attend to the tasks of living a self-reliant existence, discover in the beauty of a virtual landscape the ideas and writings of this unique philosopher, and cultivate through the game play their own thoughts and responses to the concepts discovered there. The humanities content of the game will focus on a translation of Thoreau's writings, however, will also include references to the historical context of those writings, as the game takes place in the environment of 1845 New England, when new technologies such as the railroad, the telegraph were first being seen and were part of the changes to pace of life that Thoreau resisted in his experiment.

The game will be released for home and school use on a PC and Macintosh with six hours of narrative play following Thoreau's experiences over the course of the first year of the experiment, and then unlimited post-game sandbox play in the open environment of the game. We are also hoping to release the game on commercial consoles, such as the PlayStation 4 and Xbox One, subsequent to the PC/Mac release. Also, we are experimenting with the use of Virtual Reality platforms such as the Oculus Rift, which we believe will bring a new level of immersion to this fully realized simulation of Walden Pond and the surrounding woods.

Over the course of the last several years, we have received \$40,000 from the NEA and \$25,000 from the USC Advancing Scholarship in the Humanities and Social Sciences for this project, which has gone into the development of the underlying simulation and world design. We are requesting a grant of \$100,000 from the NEH to support our work on the humanities content for this prototype. This will cover a significant portion of the media team's costs as we work with our team of historical advisors and curators of Thoreau's writings to integrate his words and ideas into this interactive environment. We have already been working with several of these advisors, and with our media team, on a volunteer basis, and have found ways to make great progress as such. However a grant from the NEH at this time could make all the difference in our ability to fully realize this innovative project, particularly in the ability to keep key personnel available.

B) Humanities content:

The project proposes to create a fully immersive 3D game world of Walden Pond and its surroundings circa 1845, including a section of Concord, the Fitchburg Railroad, Emerson's house and library and, of course, Thoreau's cabin and bean field. The virtual environment is filled with the plants and animals that Thoreau discusses in his writings, determined by a detailed indexing of the text, and created as 3D elements in the world that change from season to season. More than this, the game creates a sense of place, and reflects the subtle nature of Walden as described by Thoreau. The 3D environment is meant to enhance and support this sense of place, echoing Thoreau's work that is so richly imbued with a sense of locale. His own attention to the details of region and of nature are carefully integrated into the game's environment; the contemplative practice he models in his writing structures the play of the game. Thus, the project is rooted in a careful attention to Thoreau's writing and to scholarship on Thoreau. It also represents a significant engagement with and advancement of the aesthetic

dimensions of video games, as it deploys this aesthetic of romantic realism in order to encourage stillness and reflection rather than competition or aggression.

Tracy Fullerton and the team at the Game Innovation Lab have been working on bringing this immersive game that invites players into a rich, contemplative experience based on Thoreau's classic book to life for the past several years. The team has consulted with leading literary scholars and historians in the field and has visited the Pond many times to document it in various seasons throughout these years. We have an ongoing relationship with The Thoreau Institute at Walden Woods and have initiated a relationship with the Huntington Museum here in Los Angeles, where the first seven drafts of the manuscript of *Walden* are on display. We have plans to be part of a Thoreau conference at the Huntington in the fall of 2016, just prior to the anniversary of Thoreau's birth.

Our game proves to be a unique contribution to the study of Thoreau, and to the advancement of the field of digital humanities overall. While there have been adaptations of some works of literature to games – *The Lord of the Rings*, *Dante's Inferno* – these have always been focused on the combat moments within those books and not on the larger themes of the works. With *Walden*, a game, we engage directly with the themes of the piece: self-reliance, a relationship with nature, breaking away from material culture, and the progress of spiritual growth. We have created a simulation that focuses on the basic and material needs of survival – as Thoreau describes them: food, fuel, shelter and clothing. Counter to this we have created a vibrant and expressive natural environment that will lure the player away from basic survival to exploration of the virtual woods. It is only in finding a balance between the two that the player can truly excel. Unlike most games, gaining more items or “leveling up” is not always the best path to follow. As Thoreau quips, “these things are more easily acquired than got rid of.”

To give you some idea of the potential impact of this project, here is a description of the game experience as intended. When the game begins, it is summer of 1845, and you enter in a clearing of wildflowers behind the frame of Thoreau's unfinished cabin. As you explore, you see a glimmer of an arrowhead ahead. Upon picking up the artifact, the kind Thoreau was famous for finding in his native Concord, you hear his voice explaining, in his own words, why he has come to the woods and how he intends to live there. His experiment is now your experiment. You can choose to finish his shelter, clearing and farming the bean field behind the cabin, and get to work providing yourself with the basic necessities of life, or, you can wander the woods in search of inspiration.

You are not alone in the woods, as you soon find out. You are surrounded by wildlife, Thoreau's “brute neighbors,” who, if followed, will lead you to find special areas and rewards. The woods are filled, not only with more arrowheads of Thoreau's thoughts, but also with the library of ideas that he was inspired by while there. You may even stumble on Emerson taking a walk and musing upon nature. There are the faraway sounds of society that were the focal point of Thoreau's many critiques of his fellow townspeople – the wagons on the road, the train whistle, the incessant chopping of trees, culling away the very nature he was seeking to understand. The game activities are based in Thoreau's exacting descriptions of his time at Walden and break ground in terms of how a game can express ideas through its mechanics. Environmental author Bill McKibben calls Thoreau “a Buddha with a receipt from the hardware store” and the game models these twin impulses of the philosophical and the practical in its structure. Players must build their cabin to protect them from the elements, but they are also encouraged to wander

the woods during a spring rainstorm. The meaning of a game lies between what players must do and what they can do. In *Walden, a game*, this dialectic forms a place of discovery that will allow players to find their own answer to Thoreau's primary question: "How much is enough?"

During the summer, it is easy to live off of the land, picking berries, fishing, chopping wood, etc. But if a player does not think ahead, the winter will become a trying time. As the seasons progress, so hopefully, does the player's ability to balance these basic needs with the urge to explore and play in the woods, chasing the rabbits, squirrels, or partridges, or following a blue jay along its path. The various animals will lead players to "solitude" spots, places of great natural beauty, and "reading rocks," places where the texts that Thoreau himself was inspired by, can be found and browsed. Players can row across the Pond to Emerson's Cliff and take in the view that Thoreau found so inspiring, or they can walk along the Concord road to the town itself. Here, the player can visit the Thoreau family home and pick up some mended laundry, possibly partake of a homemade pie from the windowsill. In town, there is a general store, and, if the player has money (from odd jobs that are available), they can also purchase supplies that they may be short on. There are many expensive items here, however, and once a player gets into the habit of buying what they need, rather than making or finding things in the woods, there is a danger here. In the post office, letters can be picked up from correspondents including Louis Agassiz, for whom Thoreau provided unique specimens of the wildlife at Walden Pond. Also, letters from friends, family, and other poets and authors provide an ongoing narrative of life in America at this time. It is even possible that the player may find themselves in the town jail cell, should they choose to protest the collection of taxes.

The seasons of the game pass in a loose narrative, as they do in the book, following an arc of discovery from summer through fall and the deep solitude of winter, culminating in the coming of spring and the reaffirmation of faith in humankind and nature alike. At the end of the game year, the player is invited to continue on in an open play mode. As Thoreau says at the end of his narrative, "Thus was my first year's life in the woods completed; and the second was similar to it."

The experience of playing *Walden*, a game is one that will embody and express the themes of Thoreau's work, bringing it to life in the game medium in a such a way as never has been possible before. The game will also offer a new lens into the possibility of video games as an expressive form for the digital humanities, advancing our understanding of their mechanics and narrative form. We ask you to support this effort, which breaks new ground, even as it revalues and explores the rich terrain of inner life at Walden Pond that Thoreau so ably preserved for us.

C) Project format:

The prototype is being created for PC/Mac in the Unity3D game engine. It will later be ported to PlayStation or Xbox, also using the Unity3D engine, and concurrently, adapted for use in Oculus Rift.

Game features:

The underlying mechanics of the game are a "survival" simulation based in Thoreau's writing. As he states in *Economy*, the first chapter of "Walden," "the necessities of life for man in this climate may, accurately enough, be distributed under the several heads of Food, Shelter, Clothing, and Fuel; for not till we have secured these are we prepared to entertain the true problems of life with freedom and a prospect of success." Using this as a starting point, we will

create a game simulation that allows the player to care take these “necessaries of life” in a number of ways. They can fill their food stores in the woods by picking berries, finding other edible plants, growing beans or fishing. Or, they can go to the general store in Concord and purchase food stores – if they have the money. They can find fuel in the driftwood along the shore of the pond, chop wood, or again, visit Concord to purchase fuel in the store. There are similar options for all of these basic needs, each of which has their own pros and cons. For example, finding food might be easy at first, but as the months progress, and winter approaches, berries won’t be as plentiful and this becomes more of a challenge. Similarly, in the winter, more fuel is required to maintain what Thoreau calls “the vital heat.” Vital heat, or energy, will revive over time, but if the player uses too much too fast, they may faint from over exertion.

These basic necessities of life are countered in the game by the more ephemeral needs fulfilled by activities that Thoreau describes throughout the rest of the book: reading, listening to the sounds of the woods and of society just off his horizon, enjoying solitude as well as the company of a few visitors and his “brute neighbors,” the various animals sharing his sojourn at the pond. These activities all add to what we call “inspiration” in the game, or the sense of self as connected to the natural world, and the world of ideas. In *Walden*, a game, unlike other videogames, maintaining this sense of connection to the world is as important as maintaining ones energy levels. Players will need to rethink their strategy of play in order to fully realize Thoreau’s experiment.

The core mechanics of the game are:

- Exploration of the woods (walking, running, rowing boat)
- Finding/growing/buying food
- Finding/cutting/buying fuel
- Repairing/finding/buying clothes
- Building/repairing/upgrading shelter
- Listening to sounds of woods, life in the distance
- Enjoying solitude at stone cairns in the remote sections of the woods
- Reading sections of books scattered throughout the woods
- Interacting with animals and other visitors, such as Ralph Waldo Emerson

Throughout the game players will receive notes and letters from various game characters including Emerson, scientist Louis Agassiz, friends and family that will send them on quests and offer them opportunities for special interactions that form the emergent narrative opportunities of the game.

Game levels:

As already noted, the game begins in summer of 1845, when Thoreau first went down to the woods to live. Although he lived there for 2 years, 2 months and 2 days, the book of *Walden* only describes the first year, season by season, of his experiment and so that is the structure of the game as well. This list of levels describes the intent of each season of the game as it relates to player narrative and flow of the game. Each player will, of course, experience a different narrative, depending on how they spend their time, but this gives a general sense of the possibilities available in each level of the game.

Game level	Playing time	Experience goal of season
Summer	90 minutes	Players learn how to survive by picking berries, gathering driftwood. They may borrow an axe and chop wood, find a fishing pole and fish, find a boat and traverse the pond. Life is simple and easy.
Late summer	90 minutes	In late summer they begin to learn about inspiration, how to find it in the woods, how ephemeral it is if they do not care take it as well as their basic needs.
Fall	90 minutes	In the fall, life is still fairly simple, but the berries are growing thin. If they have planted beans, they will need to nurture them to keep the weeds and the woodchucks away. If they take on odd jobs, they may have more money, but find themselves spending more and more time away from the woods. Letters from friends speak of topical issues in America of 1845, such as the anti-slavery movement. Peers write of their work.
Late fall	90 minutes	The leaves are changing and if they have kept a good balance between their basic and needs and inspiration, the woods will be glorious. If not, they may find themselves experiencing fall in dullness and drudgery. Scientist Louis Agassiz writes in request of specimens from the pond, which players can search for if they like.
Winter	90 minutes	With winter comes the hardest challenge of the game. There are higher needs for food and fuel. The shelter and clothes need repair to keep the player warm. But, if they have been able to balance their needs, they will find winter to be full of a fragile grace, stillness and opportunities for solitude as well as joyful activity.
Late Winter	90 minutes	The pond is frozen; the town is quiet. If the player is full of energy, they can skate across the pond on clear days. They may forage out the few edible berries and plants in winter, or they may live off their store of beans. If they have not prepared well, late winter may find them taking refuge in the Thoreau house in town, where Henry's mother often leaves mended clothes and possibly a homemade pie.
Spring	90 minutes	As the pond breaks up and the first signs of life return to the woods, there is again the potential for great joy for the player to experience, especially as life becomes easier again and there is more potential to focus on raising inspiration rather than survival.
Late Spring	90 minutes	The return of full spring was a powerful metaphor for Thoreau, and as well for the game. As life blooms in fresh and bright greens, there is a largeness and lushness to the environment if players can maintain that balance they have learned. Walking in the twilight with Emerson as he muses on his epic essay Nature we hope

		that players will take away from this game experience a sense of the “dawn in me” of which Thoreau speaks.
Sandbox play	Unlimited	“And so the seasons went rolling on into summer, as one rambles into higher and higher grass. Thus was my first year's life in the woods completed; and the second year was similar to it.” After the main year is complete, players are able to engage in unlimited sandbox play in the world of Walden, which will still be filled with experiences to be had and secrets to be explored.

As mentioned, the game is being designed first as a 3D PC/Mac experience that will be downloadable and playable at home or in schools. We are also planning to port the game to the Sony PlayStation and to the Oculus Rift once the major work on the PC/Mac version is complete. The Oculus Rift version will likely be focused on use in museum exhibits or art game installations, until there is a significant player base with the technology available at home.

This game is perhaps one of the most ambitious independent experimental games attempted to date, but the team has a high potential for success given our experience in developing and distributing independent projects. See the next section for a discussion of the potential reach of this project.

D) Audience and distribution:

The intended audience for *Walden, a game* is both broad and deep. We have designed the game to be playable by a very broad audience of players, from those who have never played a 3D first person game, to those who are experienced, long time game players. For new players, they will find the simple control scheme, using the keyboard to move and mouse to click on items of interest and activate game features, simple and intuitive. We have made simple adjustments in expected game tropes to help lesser experienced players with the game, such as making sure the horizon is always visible so that players don't become confused, a common problem for those new to 3D environments. We are also working on making the user interface for the game as simple as possible, while still communicating the information needed to play. All of this is to say that we intend this game for a broad reach – from old to young, from gamers to non-gamers.

In addition to making sure the game is accessible for a broad audience in terms of playability, we also intend for it to have a deep relationship to the content on which it is based. As such, there will be over 350 textual references to Walden, Thoreau's journals, and his other writings. These will be direct quotes found in various aspects of the game, from the voice over that forms the narrative through line, to the annotations on each of the various trees, plants, animals, objects and people that fill the woods and the town. As these are found or experienced, they will fill the player's own game journal with a procedural version of Walden. The experience is intended to communicate the themes of the book in a deeply meaningful way, and with great rigor as to its textual roots. In this way, we feel that the game has potential audiences that range from players of experimental games, to students of history and literature, to scholars of Thoreau, Concord history and Transcendentalism.

It is a critical time in the evolution of digital games as well as digital humanities; one where we hope that games will grow to become an important form of creative expression for several

generations of artists raised on participatory media. Along with other innovative games that can be found at festivals or conferences such as Indiecade and Games for Change, *Walden, a game* stakes out new ground in this evolutionary process. We have found through the release of a number of our prior independent game projects, that online distribution is a very effective way to reach a mass audience of players interested in these types of experimental games. Previous projects which we have released online have had downloads exceeding several millions and have garnered international audiences and awards. We are of the hope that this game, with its innovative and expressive mechanics, will also find its audience online.

Our goals with this grant are both to complete a prototype of the game and to partner with as many avenues of distribution and engagement as possible for *Walden, a game*. We will present the game at academic and industry conferences, art exhibitions including galleries and museums. We have already been approached by the store at Walden Pond about carrying the game for visitors to the site. And, we would like to make the game available to students and teachers via download from the web along with supporting curricular materials. As we develop further partnerships for distribution, we will create a full plan for following through on our goals of both broad and deep reach for the game.

Following the official release of the game we will be able to quantify the success of engagement through download statistics, embedded play metrics (see below for details), You Tube hits, Twitter and Facebook followers, among other social network statistics. Our experiences in utilizing online marketplaces we will help to open up these venues for *Walden, a game*, as well as other potential humanities based games in the future.

E) Project evaluation:

The Game Innovation Lab uses an iterative, playcentric approach to designing our games. This means that we involve players and player feedback at each level of our design process, from the earliest days when we are working with concepts and paper prototypes, to our first digital prototypes and on through our digital development. For a project such as *Walden*, we have brought in game players and non-players alike, to get a sense of how the game will be approached by a range of players. As we progress with the prototype, we will continue to iterate using this method of design. We have found that only by involving playtesters throughout the process can we understand where our innovative designs are working and where they need clarification.

As part of our process, we will work in the Game Innovation Lab's state of the art user research labs, run by Professor Dennis Wixon, who was formerly the founding manager of the Microsoft Games User Research Lab. Dr. Wixon is now a full time faculty member at USC and the Microsoft Endowed Professor in User Experience. He will assist us in evaluating the way in which the game is reaching our goals for overall player experience, usability and depth of understanding of the content.

In addition to evaluating the overall player experience of the game, we will also track metrics of how players interact with the game environment: how many of the textual references they encounter, where they go, what they do, their success rates for using the game features, etc. These will all be tracked during the alpha and beta periods in order to optimize the game for the best experience. And later, in order to understand how the game is performing as it reaches a wider public. We are very familiar with using these types of metrics in gameplay and will be able

generate daily, weekly and monthly reports of our game metrics for internal use. We will not distribute these metrics beyond our team and advisory board, however, and no personal information from players will be tracked.

In terms of quality assurance, we will use a custom bug-tracking database in the lab to organize our efforts. The game will be distributed to a small community of players to create a test bed—likely students and graduates of the game program at USC. These players will be able to submit bug reports to the team for resolution. Our back-end metrics can help with this as well, as it will track machine and operating system information, as well as crashing instances so that we can find patterns of errors. With twenty years of experience leading game development teams, Tracy Fullerton, along with the team at the Game Innovation Lab, will strive to produce a deployable version of the game with no crashing or limiting bugs present.

F) Rights, permissions, and licensing:

The text of *Walden* by Henry David Thoreau is in public domain. The Unity game engine is used as per our professional licenses. We have a SAG waiver in place for the voice over performance for Thoreau, as the well-known actor we have chosen (not yet announced) is a member of that union. All other material is original and copyrights are owned by the Game Innovation Lab at the University of Southern California.

G) Humanities advisers:

Jeffrey S. Cramer, M.L.S., has been an advisor to the project for a number of years. Cramer is Curator of Collections at the Thoreau Institute at Walden Woods. He is the author of several internationally known works on Thoreau, including “I to Myself: An Annotated Selection from the Journal of Henry D. Thoreau” and “*Walden: A Fully Annotated Edition*.” His input and advice on Thoreau, his writing, his life and habits, has given the team validation and excellent new directions over the years of the project and we see him continuing in this vital role.

William Deverell, Ph.D., is Professor and Chair of the History Department at USC. He received his undergraduate degree in American Studies from Stanford and his MA and PhD degrees in American history from Princeton, where he was a student of James M. McPherson. He has written books on political, social, ethnic and environmental history and will be teaching a course on Thoreau and *Walden* during the course of this project. We will engage Professor Deverell and his class in our iterative process, seeking input into how the game might be used to inform the study of Thoreau, and how a digital humanities project such as this might extend or layer the classroom experience around historical literature.

Daniel Lewis, Ph.D., is Chief Curator of Manuscripts and Dibner Senior Curator of the History of Science & Technology at the Huntington Library, where Thoreau’s original manuscripts of *Walden* are part of the collection. Lewis’ most recent exhibit at the Huntington was entitled *Beautiful Science: Ideas that Changed the World*, which won the American Association of Museums’ Grand Prize for Excellence in Exhibitions. The Huntington has plans to create a conference around Thoreau in the fall of 2016, of which *Walden, a game*, would be a central part.

Susan Foster Jones is Director of Education at the Concord Museum, where she is in charge of developing curriculum around the many collections of the Museum, including the Henry David

Thoreau Collection, the world's largest collection of objects related to the author. The collection holds over 250 artifacts, including the desk and chair from Thoreau's house at Walden, his flute, pencils from his family's business, and much more. As the Director of Education, Jones will develop ways to use the Walden video game as part of the outreach that she does with many audiences including students, families and general visitors. The Concord Museum's annual visitation exceeds 40,000 visitors including 8000 students.

Pablo Frasconi is an independent filmmaker and professor at USC's School of Cinematic Arts. Frasconi's films *Survival of a Small City*, *Towards The Memory of a Revolution* and *The Woodcuts of Antonio Frasconi* have been broadcast on PBS and are distributed by the Museum of Modern Art, The American Federation of Arts and Filmmakers' Library. His films are in the collections of the Smithsonian Institution, the Museum of Modern Art, the New York Public Library and the Virginia Museum of Arts. He is currently working on a film about the work of Thoreau entitled "The Light at Walden," involving extension research of Thoreau's experiment and the environment at Walden and his insights on the topic have proven extremely useful to the team.

H) Digital media team:

Tracy Fullerton, M.F.A., is the lead game designer and director of *Walden*, a game. She is the Electronic Arts Endowed Chair of USC's Interactive Media and Games Division and the Director of USC Games, ranked the #1 ranked games program by the Princeton Review. She is an experienced game designer with over 20 years in the industry and academia making games for companies including Microsoft, Sony, MTV, among many others. Prior to joining USC, she was president and founder to the multiplayer game developer, Spiderdance. Her textbook, "Game Design Workshop," is used in game programs worldwide. Her long career in game design and influence on the independent games community was recently acknowledged by the IndieCade Trailblazer Award. She holds a BA in Theater Arts and English Literature from University of California, Santa Cruz and an MFA in Cinema-Television from USC.

Todd Furmanski, Ph.D. candidate, is the lead programmer for *Walden, a game*. He is a researcher at the University of Southern California School of Cinematic Arts, working towards his Ph.D. in Media Arts and Practice. His research interests inclusion virtual reality, emergent algorithms and their use in procedural content generation, and the history of digital media. He recently completed his examinations in the spring of 2014, and is now focused on a variety of research projects with both the Game Innovation Lab and the World Building Media Lab, including *Walden, a game* and the *Leviathan* project.

Kurosh ValaNejad, M.F.A. candidate, is the Art Director of the Game Innovation Lab and *Walden, a game*. During the last 20 years, he has worked with artists and scientists in a variety of disciplines including: Land Planning, Architecture, Publishing, Fine Art, Animation, Virtual Reality, Artificial Intelligence and now Video Games. He has managed to remain an amateur by continually changing the field to which he applies his 3D computer-graphics skills and the resulting works are evidence of the synergistic value of collaboration. Prior game projects at the Game Innovation Lab include *The Night Journey* and *The Redistricting Game*.

Lucas Peterson, B.A., is the 3D environment and character artist, as well as a level designer for *Walden, a game*. He graduated from the USC Roski School of Fine Arts in May of 2010 with a Bachelor of Fine Arts degree and an emphasis in drawing and design. Throughout his time at

USC, Lucas has supported a multitude of graduate and undergraduate video game projects as a 2D and 3D all-purpose artist. Other projects at the Game Innovation lab include the *FutureBound* college access games and the *Chrono Cards* WWI history games. His interest in video games stems from a long history of gaming and a passion for entertainment and the interactive experience.

Michael Sweet, B.A., is the audio designer and composer for *Walden, a game*. He is an award winning composer and sound designer including a BDA Promax Award for Best Sound for a Network Package, Best Audio Award at GDC Independent Games Festival, and nominations for multiple Game Audio Network Guild awards. His work has been featured in games from Cartoon Network, Sesame Workshop, Shockwave, RealArcade, iWin, PlayFirst, Pogo, Microsoft, Lego, AOL, and MTV, as well as network identities for HBO, VH1, Comedy Central, CNN, General Motors, and NASDAQ. He has collaborated with Tracy Fullerton on many projects, including *The Night Journey* project with Bill Viola. Michael is currently an associate professor at Berklee College of music, of which he is an alumnus, and where he has led the development of their video game scoring curriculum.

Alex Matthew, M.F.A. candidate, is a programmer and systems designer for *Walden, a game*. He is currently a graduate student in the USC Interactive Media & Games division studying game design and development. Prior to coming to USC, he graduated from UC Santa Cruz with a degree in computer science, emphasizing games. He has worked on a number of student projects and has been working as a graduate research assistant in the Game Innovation Lab for the past year, focusing on *Walden, a game*.

Logan Ver Hoef, M.F.A. is a programmer and level designer for *Walden, a game*. He recently graduated from the USC Interactive Media & Games division, where he has been a graduate research assistant in the Game Innovation Lab for the past three years focusing on *Walden, a game*. His MFA thesis project, *The Observatory*, is an exploration of environmental storytelling.

I) State of the project:

Walden, a game is perhaps one of the most ambitious independent games ever attempted. The design calls for a richly realized immersive 3D simulation of Walden Pond, the surrounding woods and a section of Concord, including the Fitchburg Railroad. Each of these areas are simulated in eight seasons – the four main seasons and transitional seasons between. Thousands of trees, plants and ground details all must change season to season in this dynamic game environment.

Additionally, there are over 350 textual references, 250 of which are connected to “arrowhead moments,” which are special moments in the game that bring ideas, themes and special aspects of the book to life. And, there are approximately 100 species of trees, plants and animals that inhabit the world, many of which are animated and require artificial intelligence to control their behavior.

Uniting all of these elements is a procedural sound scape and musical score that will change with the time of day, season and location in the world. The music will react to the state of the player’s inspiration, falling away to a thin accompaniment when the player is uninspired, and rising in level of orchestration as they find more inspiration in the world.

Currently, we have a preliminary proof of concept that contains quite a lot of these elements, but none of them are complete. We are planning to submit a rough build of the first season, summer, to a festival this June, and hope to get quite a bit of feedback on this preliminary proof of concept that will help us move forward.

In addition to completing the elements described above, our major task over the next year and a half is to integrate the narrative and humanities elements of the game – the letters and notes and visits that form a through line of activity for the player and will contextualize much of the gameplay from an historical context. Most of our effort to date has been on building the underlying simulation and the 3D assets, now we are focused on the content, the story and the overall emotional arc of play.

From the early days of building the cabin, to the dry days of fall when the summer berries begin to fade, and to the fragile grace of winter when living becomes a hardship, but a beautiful one, and final to the lush beauty of spring, which so inspired Thoreau, our game needs a great deal of work to accomplish the level of articulation we seek. We want players to not only understand Thoreau's experiment, but to feel it's arc, the fragments of narrative that Thoreau strung like jewels in his descriptions of his first year at the Pond.

As already mentioned, we have received an NEA grant for \$40,000 and a \$25,000 grant from USC's Advancing Scholarship in the Humanities and Social Sciences. We have also applied for a Sundance Storytelling Lab that could help provide consultation in building out the narrative, and we also intend to reapply to the NEA this year in hopes of receiving a follow-on grant. However, the scope of this project remains ambitious and support from the NEH could be the real turning point for the project and make it possible for us to enrich our effort with the input of a stellar advisory board and the ability to keep key personnel, including our lead programmer, artists, and sound designer/composer.

J) Work plan:

Our overall schedule, team permitting, is as follows, with the underlined portions of the scheduling falling under this proposal:

- June 15, 2014: Submit festival build of summer season.
- June/August 2014: Test and iterate on summer narrative components.
- Sept/December 2014: Begin planning narrative components for fall season of game
 - Informal advisory meetings.
- **January 2015: First Formal Advisory meeting**
- Jan/March 2015: Test and iterate on fall narrative components
 - Playtest with scholars and students of Thoreau.
 - Playtest with Advisory board.
- April/June 2015: Add narrative components for winter and spring of game, revise summer and fall as necessary to address full emotional and historical arc of game experience.
- **July 2015: Second Formal Advisory meeting**
- July/Sept 2015: Wide scale beta testing and iteration of narrative experience using backend metrics and player focus groups
 - Informal/one-on-one advisory meetings continue.

- Oct/Nov 2015: Final bug resolution.
- December 2015: Launch of PC/Mac game.
- Jan/Aug 2016: Development of PlayStation and Oculus Rift versions.
- Sept/Dec 2016: Testing/Debugging of PlayStation and Oculus Rift versions.
- December 2016: Launch of PlayStation and Oculus Rift versions.

Full advisory meetings would be held twice during the grant period, with one-on-one meetings with individual advisors on an ongoing basis. The two full meetings would be in months one and seven – January 2015 and July 2015 – at the Game Innovation Lab in Los Angeles. Since three of our advisors are local, we will also plan to meet with them at the lab on a monthly basis as they are available. Jeffrey S. Cramer will be provided travel for the meetings in Los Angeles, but is also available via Skype and the team is well used to collaborating with him in this fashion.

K) Organization profile:

The Game Innovation Lab is the premier center for experimental game design and research at USC. Founded in 2004, the lab is directed by Professor Tracy Fullerton. The mission of the lab is to pursue experimental design of games in cultural realms including art, science, politics and learning. The international success of games that have emerged from the lab, including *Cloud*, *fIOW*, *Darfur is Dying*, *The Cat and the Coup* and *The Night Journey*, have made it a hub for indie and experimental games culture in Los Angeles. Our Playthink Salons attract speakers and participants from across the city and across disciplinary boundaries.

Associated faculty include award winning game designers Richard Lemarchand (*Uncharted* series) and Peter Brinson (*Waco*, *The Cat and the Coup*) as well as pioneering games user researcher Dennis Wixon. Research staff include up and coming game designers Elizabeth Swensen and Sean Bouchard, as well as the talented digital media artists Kurosh ValaNejad, Todd Furmanski and Lucas Peterson. Graduate student researchers in the lab have gone on to stellar careers at Microsoft, Electronic Arts, Zynga and more.

The lab has a strong history of collaboration with cross-disciplinary experts in many fields, including education and technology. Our commitment to an iterative, participatory process brings users, stakeholders and designers into constant dialogue. Current projects, such as the *Collegeology* suite of games *Walden, a game*, and the *Chrono Cards* History games are supported by Microsoft Research, The Gates Foundation, The National Endowment for the Arts, The Gilbert Foundation, and The Department of Education.

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- . *Walden, Or, Life in the Woods*. New York: Knopf : Distributed by Random House, 1992.
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- . *Walking*. New York: Cosimo, 2006.
- . *Walking with Thoreau: A Literary Guide to the Mountains of New England*. 1st Beacon Press ed. Boston: Beacon Press, 2001.
- Thoreau, Henry David, and Center for Cartoon Studies. *Thoreau at Walden*. 1st ed. New York: Hyperion, 2008.
- Thoreau, Henry David, and Jeffrey S Cramer. *I to Myself: An Annotated Selection from the Journal of Henry D. Thoreau*. New Haven, Conn.; London: Yale University Press, 2012.
- Thoreau, Henry David, and Bradley P Dean. *Faith in a Seed: The Dispersion of Seeds, and Other Late Natural History Writings*. Washington, D.C.: Island Press [for] Shearwater Books, 1993.
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- . *Journal Vol 2: 1842-1848*. His The Writings of Henry D. Thoreau. Princeton, N.J: Princeton University Press, 1981.
- . *Journal Vol 3: 1848-1851*. His The Writings of Henry D. Thoreau. Princeton, N.J: Princeton University Press, 1981.
- . *Journal Vol 4: 1851-1852*. His The Writings of Henry D. Thoreau. Princeton, N.J: Princeton University Press, 1981.
- . *Journal Vol 5: 1852-1853*. His The Writings of Henry D. Thoreau. Princeton, N.J: Princeton University Press, 1981.
- Thoreau Society. *Thoreau's World and Ours: A Natural Legacy*. Edited by Edmund A. Schofield and Robert C. Baron. Golden, Colo: North American Press, 1993.
- Wood, David F., and Concord Museum (Concord, Mass.). *An Observant Eye: The Thoreau Collection at the Concord Museum*. Concord, Mass: Concord Museum, 2006.



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Don Henley
Founder and President

Kathi Anderson
Executive Director

June 5, 2014

To Whom It May Concern:

I am writing in regard to The Game Innovation Lab's grant application for funding to continue production of *Walden, A Game*.

I first heard about the project, and have been involved with it, since Tracy Fullerton came to the Thoreau Institute in 2007 to discuss *Walden, A Game*. What first intrigued me about the proposal was the concept of using gaming as a way of introducing people to the philosophy of one of America's greatest writers, Henry David Thoreau. Although at first it may appear to be antithetical to use electronic gaming as an interpretive media to the philosophical ideals of Thoreau, I do not believe this to be so. Thoreau's publishers were the best of his day, using the best methods to bring his words to a reading public. This is one of the ways to bring Thoreau's work to a younger audience.

I have found The Game Innovation Lab's proposal to show a profound understanding of the life Thoreau was living during his brief tenure at Walden Pond. Not a one-dimensional adaptation of a stay in the woods, *Walden, A Game* incorporates the concepts of simplicity, deliberation and personal growth.

As a Thoreau scholar and editor, and as Curator of Collections at the Thoreau Institute at Walden Woods where I have been since 2000, I am in the center of Thoreau studies and am often in the position of assessing not only past work on Thoreau but many works-in-progress also. I have published several internationally-known works (a CV is attached) for Yale University Press, Princeton University Press and Viking Penguin, among others.

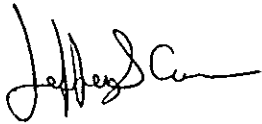
As one who often talks with people about Thoreau's *Walden*, I know the difficulty in getting a modern audience to appreciate the relevancy and importance of Thoreau's work. I find that the *Walden Game* utilizes a media with which many people today are comfortable and conversant. Like theatre and film, *Walden, A Game* uses a different media to interpret and present the written word.

I am committed to continuing my work with The Game Innovation Lab, providing my expertise as a Thoreau scholar as well as providing the resources of the Thoreau Institute library. Any help I can offer to further is at the disposal of Ms. Fullerton and her team.

What particularly struck me is The Game Innovation Lab's keen ability to use gaming, usually thought of as fast-paced and hyperactive, in a slower and more calming context. Having looked at the accomplishments of Ms. Fullerton and her team, I have no doubt about their ability to bring this project to fruition. Their previous work had already introduced gamers to a new and gentler game.

In my estimation, The Game Innovation Lab's work in this area is a vital avenue for bringing an initial understanding of Thoreau's work to those who may not yet be ready or willing to read this American classic. I hope that they will find the support they need to continue this work, allowing Ms. Fullerton and her team to fulfill their vision.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey S. Cramer". The signature is fluid and cursive, with a long horizontal stroke at the end.

Jeffrey S. Cramer, Curator of Collections

June 6, 2014

Tracy Fullerton, Director
Game Innovation Lab
University of Southern California
3470 McClintock Avenue #301
Los Angeles, CA 900089

Dear Professor Fullerton:

I am writing this letter to support the University of Southern California's grant proposal to develop *Walden, a game*. I am a Professor of History and Chair of the History Department at the University of Southern California. As an American historian with a focus on the nineteenth and twentieth century American West, I have written works on political, social, ethnic, and environmental history and I am currently at work on a book exploring the history of the post-Civil War American West.

This project and my current research have many exciting intersections. Especially relevant, I believe, is the course I am preparing to teach for the first time in the fall term of 2014. This is a class for our top freshmen (in our Thematic Option honors track) entitled "American Nature." Henry David Thoreau and his circle are a major focus in this course (and we expect to see the *seven* longhand versions of his *Walden* which are housed at the Huntington Library). In addition, I am deepening my involvement in the digital humanities, having developed "Form and Landscape" an online exploration of imagery of the built landscape of Southern California in the period 1940-1990 (ptsp-edison.com).

As such, feel both privileged and positioned to lend my support to *Walden, a game*. The subject matter of the game is of real interest to me, and I am interested in the possibility of involving my students in the development and use of the prototype. I expect to learn a great deal from my involvement, and I hope that I can help provide helpful content information in the process.

The designers coming from the University of Southern California's Game Innovation Lab have deep expertise in designing games that explore a reflective player experience, which will be critical for translating Thoreau's work to a game. Their team includes leading game designers respected in both the experimental and commercial game communities. They utilize a highly collaborative and responsive design process, which leads to engaging and innovative experiences. *Walden, a game* seems certain to be an innovative exploration of humanities content in the form of a video game that may expose players who are new to Thoreau to his work, and may give those who are already familiar with his writing a new form in which to explore his core ideas.

As an historian and an educator, I give the proposed project my fullest support. I am committed to support the development of the game by lending my guidance as an advisor to the project, contributing my expertise on the subject matter, and working with the media team to ensure that the game's content is accurate and appropriate.

Sincerely,

William Deverell





THE HUNTINGTON

Library, Art Collections, and Botanical Gardens

Daniel Lewis, Ph.D.

Chief Curator of Manuscripts

Tracy Fullerton, Director
Game Innovation Lab
University of Southern California
3470 McClintock Avenue #301
Los Angeles, CA 900089

Dear Professor Fullerton:

As the Chief Curator of Manuscripts and Dibner Senior Curator of the History of Science & Technology at the Huntington Library, I am pleased to support the USC Game Innovation Lab's grant proposal to develop *Walden, a game*. The Huntington Library is home to the first seven manuscript drafts of Thoreau's *Walden*, or "Life in the Woods," and the Library is in the planning stages of an exciting conference on Thoreau and his work, which we hope to hold in fall of 2016, just prior to the 100th anniversary of the author's birth. It is our hope to incorporate the final version of *Walden, a game* in the conference, along with other creative works inspired by Thoreau's legacy.

As an historian with a focus on the history of science, American history, Latin American history and environmental history, I have strong expertise in several areas of relevance for the project and am extremely interested in the prospect of aiding the team in their quest to create an experience that is historically accurate and has fidelity to the intent of the original text. One certain way that I am able to assist the team is by allowing them research access to the original manuscript. Additionally, I am able to give informed feedback on the humanities content within the game, such as the historical and textual references.

In meeting with the media team for *Walden, a game*, it is clear that they are deeply experienced in creating innovative game designs that integrate humanities content. I am happy to serve as an advisor to the team as they advance their project to adapt this classic text to an interactive experience.

As an historian, educator and curator, I give the proposed project my fullest support. I am committed to support the development of the game by lending my guidance as an advisor to the project, contributing my expertise on the subject matter, and working with the media team to ensure that the game's content is accurate and appropriate.

Sincerely,

Daniel Lewis, Ph.D.
Research Associate Professor of History
Claremont Graduate University

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National Endowment for the Humanities
400 7th Street SW
Washington, DC 20506

June 9, 2014

To Whom it May Concern:

As the Director of Education at the Concord Museum, I am in charge of developing curriculum around the many collections of the Museum, including our Henry David Thoreau Collection, the world's largest collection of objects related to the author – over 250 artifacts such the desk and chair from his house at Walden, his flute, pencils from his family's business, and much more. We also have on permanent loan the Emerson study, an exact reproduction of the room in which Emerson worked and entertained many of the luminaries of American Literature.

I met Tracy Fullerton last year when she visited the Museum on a research trip for her video game and we discussed the artifacts that interested her in our collection. Since then, her team at Game Innovation Lab has created a striking 3D replication of the furniture at Thoreau's house at Walden. The contents of Thoreau's house are central to the game and we are eager for more people to know about this collection at the Concord Museum. It appears to me that the Game Innovation Lab team is seeking to be historically accurate in their representations as they bring Thoreau's experience to life in the Walden game.

As the Director of Education, I would be pleased to use the Walden video game as part of the outreach that we do with many audiences including students, families, and general visitors. The Concord Museum's annual visitation exceeds 40,000 visitors including 8,000 students. Beyond this, we have many teachers who access our website for material related to Thoreau and Emerson. Currently, we have a small game on our site related to Thoreau, but it would be a great gift to be able to offer this fully immersive, deep historical game to our visitors.

As the Director of Education at the Concord Museum and as a game advisor, I give the proposed project my full support. I look forward to contributing my expertise on the subject matter and working with the media team to consider how the game might be used in learning situations such as our Museum.

Sincerely,

Susan Foster Jones
Director of Education
Concord Museum

June 5, 2014

Tracy Fullerton, Director
Game Innovation Lab
University of Southern California
3470 McClintock Avenue #301
Los Angeles, CA 900089

Dear Professor Fullerton:

It is my pleasure to support your game project, *Walden*, and to offer my insight to your team as they develop this interactive piece. As you know, I am currently completing my own project around the writings and philosophy of Henry David Thoreau, *The Light at Walden* –which includes my own experience as a war resister during the U.S. /Vietnam War.

I have been able to complete this project with support from The Park Foundation (NY), The Center for Independent Documentary, Inc. (Mass.), and USC: *Advancing Scholarship in the Humanities and Social Sciences*. The film is based on Thoreau's "Walden" and "Civil Disobedience," as well as my experiences on a wilderness island in Nova Scotia, where I built a cabin (much like Thoreau's) and attempted to live sustainably. How one relates Thoreau's philosophy to our own lived experience is a topic I am extremely interested in, and am fascinated to see how you integrate these themes into your own project.

My own films have been supported by grants from the National Endowment for the Arts, The National Endowment for the Humanities, and the American Film Institute. They have been broadcast nationally on PBS and distributed by the Museum of Modern Art, The American Federation of Arts, and Filmmakers' Library. They are in the collections of the Smithsonian Institution, MOMA, the NY Public Library, the Virginia Museum of Arts, and hundreds of institutions and libraries. Given my long history with experimental and documentary media, I am very happy to share my expertise with your team.

I give the proposed project my fullest support and look forward to working with you as an advisor to the project.

Sincerely,



Pablo Frasconi
Professor of the Practice of Cinematic Arts
USC School of Cinematic Arts

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FILM SCORING DEPARTMENT

June 5, 2014

NEH Digital Projects for the Public

To Whom It May Concern:

As an audio director and composer with a long history of collaboration with the Game Innovation Lab, I am pleased to continue that collaboration as part of the media team for *Walden, a game*. Over my past two decades in music, I have worked on more than 100 award winning video games, including *The Night Journey* project with Tracy Fullerton and Bill Viola, which was a breakthrough art video game that focused on creating a reflective, emotional experience for players. *Walden* also is a game that focuses on creating an emotional experience, of which sound and music are so much a part. My experience in breaking boundaries with interactive sound design and music are completely aligned with the goals and aesthetics of this project, and I have spent many years working on the ways in which we can create more emotionally immersive experiences in games.

One of the ways in which I am looking forward to contributing to the *Walden* project is through on-site recordings of the local birds, insects and ambience around the pond. Since I live very close to Walden Pond, I am able to do these recordings throughout the year and I am developing a procedural soundscape for the game that changes based on time of year, time of day, and the player's proximity to types of trees, plants and grasses. This level of authenticity creates an emotional resonance for players, whether they realize it or not. The game feels rich with the life of the pond, and that life changes as the sun rises and sets, and the seasons move forward.

Additionally, I am creating an interactive musical score that reflects the player's level of inspiration – or how much time they are spending on the more ephemeral exploration of the game rather than the grinding daily tasks of survival. Together, this interactive sound scape and musical score will provide a deeply emotional set of cues for the arc of the player experience.

My experience working with Tracy Fullerton and the rest of the team at the Game Innovation Lab has proved that they are a very special group of creative media makers: dedicated to the art of game design, thorough in their research of their subject matter, and experienced in bringing innovative designs to life. I give this proposed project my fullest support and look forward to working with the media team on this unique video game.

Sincerely,



Michael Sweet, mobile (b) (6)
Artistic Director Video Game Scoring, Film Scoring Department
Berklee College of Music

CURRICULUM VITAE
Jeffrey S. Cramer

Thoreau Institute at Walden Woods
44 Baker Farm
Lincoln, MA 01773-3004

Phone: 781.259.4730
E-mail: jeff.cramer@walden.org

(b) (6)



Website: www.jeffreyscramer.com

EDUCATION:

M.L.S. SUNY-Albany, 1978
 Major: Library and Information Science

B.A. University of Massachusetts, Amherst, 1977
 Major: English

PROFESSIONAL EXPERIENCE:

2000-present Thoreau Institute at Walden Woods
 Curator of Collections

1978-1999 Boston Public Library
 Various positions, including Head of Copy Cataloging; Assistant
 Head of Circulation; and Head of Circulation

HONORS:

For *The Quotable Thoreau*: Umhoefer Prize for Achievement in Humanities
(Minnesota Arts & Humanities Foundation, 2012)

For *The Maine Woods: A Fully-Annotated Edition*: Honorable Mention in
Compilations/ Anthologies Category at the 2010 New England Book Festival

For *I to Myself: An Annotated Selection from the Journal of Henry D. Thoreau*:
Selected as a 2008 AAUP University Press Book for Public and Secondary School Libraries

For *Walden* (Yale *Nota Bene* paperback): Received rating of "Outstanding" from 2007 University Press Books Committee, Association of American University Presses (AAUP)

For *Walden: A Fully-Annotated Edition*:

- NOBA (National Outdoor Book Award) in the Outdoor Classic category, 2004
- Short listed for "The Best of the Best of the University Presses: Books You Should Know About" by the Association of American University Presses
- Co-winner of the 2005 Julia Ward Howe Special Award sponsored by the Boston Authors Club
- Received rating of "Outstanding" from 2005 University Press Books Committee, Association of American University Presses (AAUP)

INTERVIEWS: PRINT, RADIO, TELEVISION:

Archivist in the Forest: *Fine Books & Collections* (January 2010)

The Maine Woods: WUMB Commonwealth Journal (14 December 2009)

A Conversation with Jeffrey S. Cramer: *The Concord Journal* (5 November 2009)

Henry David Thoreau on Food: Worldview (2 June 2009)

150 Years of *Walden*: NPR: On Point with Tom Ashbrook (on panel with Lawrence Buell and David Gessner) (6 August 2006)

Walden Revisited: *UMass Magazine* (Fall 2004)

Walden: C-SPAN Book-TV (Talk at the Concord Bookshop, 26 September 2004)

PUBLICATIONS:

BOOKS:

The Portable Emerson (PenguinUSA, forthcoming 2014)

Essays of Henry D. Thoreau: A Fully Annotated Edition (Yale University Press, 2013)

The Portable Thoreau (PenguinUSA, 2012)

The Quotable Thoreau (Princeton University Press, 2011)

The Maine Woods: A Fully Annotated Edition by Henry D. Thoreau (Yale University Press, 2009)

I to Myself: An Annotated Selection from the Journal of Henry D. Thoreau (Yale University Press, 2007. Paperback edition: forthcoming Fall 2012)

Walden by Henry D. Thoreau (Yale University Press, 2006. Yale Nota Bene paperback)

Walden: A Fully Annotated Edition by Henry D. Thoreau (Yale University Press, 2004)

Thoreau on Freedom: Attending to Man: Selected Writings of Henry David Thoreau (Fulcrum Publishing, 2003)

Robert Frost Among His Poems: A Literary Companion to the Poet's Own Biographical Contexts and Associations (McFarland and Co., 1996. Paperback edition: 2007)

SHORT PIECES:

The Toad Not Taken (expanded essay) in *Companions in Wonder: Children and Adults Exploring Nature Together*, edited by Julie Dunlap and Stephen R. Kellert (The MIT Press, 2012)

Foreword: *Excursions* by Henry D. Thoreau (London: Anthem Press, 2007)

Some Thoughts on Walden, liner notes to the CD: *Walden: The Earth Song Collection* by Michael Johnathon (Poet Man Records, 2007)

Foreword: *A Journey into the Transcendentalists' New England* by R. Todd Felton (Roaring Forties Press, 2006)

On Migration and the Migratory Instinct from the Journals of Henry D. Thoreau (compilation) in *Ecotone* (issue 2, 2006) pp. 179-181

Conserving Nature, Preserving Ourselves in *Philanthropy World* (volume 9, issue 5, 2006) p. 66

Long Love and Constant Spirits: An Interview with Richard and Charlee Wilbur in *The Literary Review* (Summer 2002 "The Secret Life of Writers" issue) pp. 762-776

Collaboration: An Interview with Marge Piercy and Ira Wood in *Kestrel* 17 (Fall 2001 [March 2002]) pp. 28-45

Peaceable Island: A Conversation with Maxine Kumin and Victor Kumin in *New Letters* (vol. 66, no. 3, 2001) pp. 60-79

A Different Education in *Paths of Learning* (Autumn 2000) pp. 20-24.

- Reprinted in *Journal for Living* ("The Myths of Education" issue, no. 23, 2001)

Entries in: *The Robert Frost Encyclopedia* (Greenwood Press, 2000):

- *A Boy's Will*
- "The Discovery of the Madeiras"
- *In the Clearing*
- "In Neglect"
- *Mountain Interval*
- "Precaution"
- "Sycamore"
- *Twilight*
- Uncollected Poetry

The Long White House That Holds Love and Work Together: An Interview with Donald Hall at Eagle Pond Farm in *Meridian* (no. 4, Fall 1999) pp. 42-66

With Jane and Without: An Interview with Donald Hall in *The Massachusetts Review* (vol. 39, no. 4, Winter 1989-1999) pp. 493-510.

- Reprinted in *Contemporary Literary Criticism* vol. 151 (The Gale group, 2002)

Weaning: One Man's Story in *The Reality of Breastfeeding* edited by Amy Benson Brown and Kathryn Read McPherson (Bergin and Garvey, c1998) pp. 139-143

Catching the Garter in *Baybury Review* (vol. 2) pp. 9-11

Alone, Like Ice (poem) in *Troubador, A Journal of Lyric Poetry* (vol. 2, no. 1, Fall/Winter 1998) p. 24

Fly Me to the Moon in *Princeton Arts Review* (Fall 1997) pp. 33-34

The Toad Not Taken in *Endangerspeak* (Fall/Winter 1997) pp. 6-7, 10-11, 15

The Vas Difference in *Your Health Magazine* (29 April 1997) pp. 64-67

Mountaineer (poem) in *The Formalist* (vol. 8 [1997], no. 2) p. 115

Heaven in *The Boston Parents' Paper* (June 1996) pp. 33-34.

- Reprinted in *Genesee Valley Parent Magazine* (June 1998)
- Reprinted in *Syracuse Parent* (June 1999)

The Twenty-Dollar Starling in *Snowy Egret* (Summer 1995 [1996]) pp 20-21

Praying for Mantises in *The Boston Parents' Paper* (August 1995) p. 44.

- Reprinted in *The Parents' Paper* [Florence, SC] (April 1998)
- Reprinted in *Genesee Valley Parent Paper* (July 1998)

Worcester Tree in *Worcester Magazine* (21-27 June 1995) p. 46

How Many in a Bed? in *The Boston Parents' Paper*, May 1994) p. 44.

- Reprinted in *Atlanta Baby* as "The Family Bed" (September/October 1997)
- Reprinted in *The Parents' Paper* [Florence, SC] (January 1998)
- Reprinted by Family Publishing Group in *Connecticut Family*, *Westchester Family*, and *New York Family* (March 1998)

Forgotten Frost: A Study of the Uncollected and Unpublished Poetry of Robert Frost: Part Two in *The Robert Frost Review* (1993) pp. 1-23

Forgotten Frost: A Study of the Uncollected and Unpublished Poetry of Robert Frost: Part One in *The Robert Frost Review* (1992) pp. 1-27

"The Spectre of the Real" by Thomas Hardy and Florence Henniker, edited with notes, in *The Thomas Hardy Yearbook* (vol. 13, 1996) pp. 6-24

Caedmon's Hymn, translated from the Anglo-Saxon, in *The Christian Science Monitor* (13 April 1982) p. 21

The Grotesque in Thomas Hardy's *The Woodlanders* in *The Thomas Hardy Yearbook* (vol. 8, 1980) pp. 25-29

Hardy, Henniker and "The Spectre of the Real" in *The Thomas Hardy Society Review* (1977) pp. 89-91

Abridged
November 2013
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Education

Ph.D., Princeton University, 1989
M.A., Princeton University, 1985
A.B., Honors and Distinction, Stanford University, 1983

Academic Experience

University of Southern California
Chair, Department of History, Fall 2012 –
Director, Huntington-USC Institute on California and the West, 2004- (www.usc.edu/icw)
Professor of History, 2004-
Professor of Environmental Studies, 2012-
California Institute of Technology
Associate Professor of History, 1996-2004
Faculty Coordinator, Mellon Foundation Minority Undergraduate Fellowship Program, 1999-2003
Chair, Caltech-Huntington Library Committee for the Humanities, 1998-2004
University of California, San Diego
Adjunct Associate Professor, 1996-
Associate Professor, History and Program in Urban Studies, 1994-96
Director, California History/Social Science Project, 1993-95
Co-Director, Organized Research Project, The American Southwest, 1994-1996
Chair, Environmental Studies, 1993-95
Assistant Professor, History and Urban Studies, 1990-94
California Institute of Technology/Huntington Library
Postdoctoral Instructor in American History, 1988-90

Other Appointments

Board Member, *California History*, 2013-
Founding Director, Los Angeles Service Academy, 2011-
Board Member, California Council for the Humanities, 2011-
Founding Editor, "Western Histories," University of California Press/Huntington Library Press, 2008-
Frederick W. Beinecke Senior Fellow, Beinecke Library and Lamar Center, Yale University, 2009-2010
Fletcher Jones Fellow, Huntington Library, 2007-2008
Board Member, National Association of Olmsted Parks, 2006-2008
Research Associate, Los Angeles County Museum of Natural History, 2004-
Chair, California Council for the Humanities, 2002-2004
Fellow, Los Angeles Institute for the Humanities, 2002-
Faculty Fellow, John Randolph Haynes and Dora Haynes Foundation, 2002-2003
Faculty advisor, Environmental Studies Program, Prescott College, 2000-2002
Fellow, Center for Advanced Study in the Behavioral Sciences, 1998-1999
Visiting Scholar, Getty Research Institute, 1996-1997
Fellow, Clark Library, 1993-1994

Visiting Scholar, UCLA, 1993-1994

Visiting Professor, California Institute of Technology, 1992-1993

Recent Grants and Fellowships

Discretionary Fund, History Department Chair, \$25,000, 2013

P.I., Los Angeles Aqueduct Centennial program grant, Metabolic Studios/Annenberg Fdn, \$45,000, 2013

Co-P.I., Pacific Standard Times Presents, Los Angeles Infrastructure [photo exhibit], \$100,000, 2012

P.I., Institute on California and the West K-12 programs, Rose Hills Foundation, \$200,000, 2011

Co-PI, California Literary Conferences, SF and LA, William R. Hearst III, \$75,000, 2011

P.I., Visions and Voices Program, USC; Woody Guthrie's Los Angeles, \$25,000, 2011

P.I., WHH Foundation, Los Angeles, to launch "Los Angeles Service Academy" \$300,000, 2011

Salvatori Fund, \$7500, USC, for Concept of the Frontier workshop, 2011

Salvatori Fund, \$6000, USC, for "Railroaded" Panel/Publication event, 2011

Haynes Foundation, Board Discretionary Funds, \$10,000, 2010

Beinecke Fellow/Lamar Fellow, Yale University, 2009

Co-P.I., Northrop Grumman Foundation, Aerospace History Project, \$250,000, 2009

Co-P.I., NSF Grant, Aerospace History Project, Huntington Library, \$371,000, 2009

Co-P.I., NEH Matching Grant and "We the People" fund, \$350,000, 2008

Grant recipient, \$25,000 Salvatori Fund, USC (Institute on California and the West programs), 2007

Haynes Foundation, \$15,000 (aerospace conference), 2007

Grant recipient, USC Provost's office, \$10,150 (Institute on California and the West programs), 2007

Grant recipient, USC Provost's office, \$16,000 (innovative publications in the humanities), 2006

Grant recipient (Institute on California and the West), anonymous source, \$50,000, 2006

Grant recipient (Institute on California and the West), anonymous source, \$200,000, 2006

Internal USC Grant, \$6000, Casden Institute, "Jews in the West" project

Internal USC Grant, \$15,000, Salvatori Fund [Institute on California and the West programs]

Haynes Foundation, \$49,500 for lecture series on Los Angeles, with Zócalo L.A.

Haynes Foundation, \$29,000 for essay collection on Los Angeles history

Haynes Foundation, Board of Trustees grant, \$10,000 for the Banning Family History Project

USC, 125th anniversary research grant, "USC and the City of Angels,"

Co-Director, National Endowment for the Humanities, Summer Institute, \$196,000.

Haynes Foundation, Board of Trustees grant (\$20,000) for environmental symposium

Co-P.I., Arthur Vining Davis Foundations for undergraduate research at the Huntington Library, \$197,000.

Co-P.I., Andrew W. Mellon Foundation for Interpretive Seminars in the Humanities, \$360,000.

Co-P.I., Andrew W. Mellon Foundation for postdoctoral app'ts in the Humanities, Caltech 440,000.

Books

To Bind Up the Nation's Wounds: The American West After the Civil War, in preparation and under contract, Bloomsbury Press.

Little Girl Lost: Kathy Fiscus and Modern America, in preparation.

Woody Guthrie's Los Angeles, edited volume, with Darryl Holter, in preparation.

Co-editor with Greg Hise, *The Blackwell Companion to Los Angeles*, Blackwell-Wiley, 2010.

Co-editor with David Igler, *The Blackwell Companion to California*, Blackwell-Wiley, 2008.

Co-editor with Greg Hise, *Land of Sunshine: The Environmental History of Metropolitan Los Angeles*, University of Pittsburgh Press, 2005; paperback edition 2006.

Co-author with Deborah Gray White, *Call to Freedom* (8th grade United States history text), Holt Rinehart & Winston, 2005

Whitewashed Adobe: The Rise of Los Angeles and the Remaking of Its Mexican Past, University of California Press, 2004; paperback edition 2005.

Editor, *The Blackwell Companion to the American West*, Blackwell Publishers, 2004; paperback edition 2007.

Co-editor with Tom Sitton, *Metropolis in the Making: Los Angeles in the 1920s*, University of California Press, 2001; paperback simultaneous.

Co-author with Greg Hise, *Eden by Design: The 1930 Olmsted / Bartholomew Plan for Los Angeles*, University of California Press, 2000; paperback simultaneous.

Co-author with Anne Hyde, *The West in the History of the Nation*, 2 vols., Bedford/St. Martin's Press, 2000.

Railroad Crossing: Californians and the Railroad, 1850-1910, University of California Press, 1994; paperback edition, 1996.

Co-editor with Tom Sitton, *California Progressivism Revisited*, University of California Press; simultaneous paperback, hardback editions, 1994.

Series Editor: Western Histories, University of California Press and Huntington Library Press

Tamara Venit, *A Squatter's Republic: Land and the Politics of Monopoly in California, 1850-1900*, 2013

Joshua Paddison, *American Heathens: Religion, Race, and Reconstruction in California*, 2012

Volker Janssen, ed., *Where Minds and Matter Meet: Technology in California and the West*, 2012

Peter Westwick, ed., *Blue Sky Metropolis: The Aerospace Century in Southern California*, 2012

Joshua Sides, ed., *Post-Ghetto: Reimagining South Los Angeles*, 2012

Louise Pubols, *The Father of All: The de la Guerra Family, Power and Patriarchy in Mexican California*, 2010, winner of the Ray Allen Billington Prize, Organization of American Historians and the William P. Clements Prize, Clements Center for Southwest Studies, SMU

Steven Hackel, ed., *Alta California: Peoples in Motion, Identities in Formation*, 2010

Journal Articles/Editions

"Bricks, Seeds, Culture, and History," *California History*, v. 91, no. 1, 2014.

"Forget it Jake, It's Chinatown," with Tom Sitton, *Boom*, Fall 2013

"What is this Railroad to do for us?" introductory essay to special edition, *California History*, Fall 2011

Co-author with Greg Hise, "Los Angeles: 1910," in "Beyond Britain" special issue, *Victorian Review*, Spring 2011

Guest editor, *Casden Annual* (special 2010 issue: Jews of California); Casden Center, USC.

"Claims and Reclaims in Western History," *Reviews in American History*, September 2010.

"The Farther West: Mormons, California, and the Coming of the Civil War," *Journal of Mormon History*, 2008.

"California and the Coming of the Civil War," *Southern California Quarterly*, 2008

"Redemptive California?: Re-thinking the Post-Civil War," *Rethinking History*, 2007

Co-author with Bryant Simon, "Come Back, Tom Joad," *California History*, Winter 2001, 180-191.

Co-author with David Igler, "The Abattoir of the Prairie," in *Rethinking History*, Fall 1999, 321-323.
Reprinted in Robert Rosenstone and Alun Maslow, eds., *Experiments in Rethinking History*, Routledge Publishers 2004.

Co-author with Douglas Flamming, co-authors, "Race and Regional Identity: Boosting Los Angeles, 1880-1930," in John Findlay and Richard White, eds., *Power and Place in the American West*, University of Washington Press, 1999, 117-143.

"Plague in Los Angeles, 1924: Ethnicity and Typicality," in Blake Allmendinger and Valerie Matsumoto, eds., *Over the Edge: Mapping the Contours of Western Experience*, University of California Press, 1998, 172-200.

"Privileging the Mission Over the Mexican: The Rise of Regional Consciousness in Southern California, 1880-1940," in David Wrobel and Michael Steiner, eds., *Many Wests: Regional Consciousness in the American West*, University Press of Kansas, 1997, 235-258.

"The Los Angeles Free Harbor Fight," *California History* 70 (Spring 1991), 12-29.

"To Loosen the Safety-Valve: Eastern Workers and Western Lands," *Western Historical Quarterly* 19 (August 1988), 269-85.

Recent Articles in Collections

"Dreams Deferred: Parks and Open Space," forthcoming in *Overdrive: Los Angeles Constructs the Future, 1940-1990* [Los Angeles: Getty Museum, 2013].

"The Afterlife of a Master Plan," [with Greg Hise], in David Sloane, ed., *Planning Los Angeles* (Chicago: American Planning Association, 2012).

"Politics in the Twentieth Century American West," in Deverell, ed., *The Blackwell Companion to the American West*, 442-459.

"Congress and the American West, 1865-1900," in *The American Congress: The Building of Democracy*, Houghton Mifflin, 2003.

Co-author with Greg Hise and David Sloane, *Orange Empires: Miami and Los Angeles*, special issue, *Pacific Historical Review*, May 1999.

"The Southern Pacific Railroad Survives the Pullman Strike of 1894," in S. Chan and S. Olin, eds., *Major Problems in California History*, DC Heath, 1997.

"Fighting Words: The Significance of the American West in United States History," in *A New Significance: Re-Envisioning the History of the American West*, Oxford University Press, 1996 and *Western Historical Quarterly*, Autumn 1994.

"Church-State Issues in the Period of the Civil War," in John F. Wilson, ed., *Church and State in America*, vol. 2 (NY, 1987), 1-32.

Daniel Lewis

HOME:

(b) (6)

WORK:

The Huntington Library
1151 Oxford Road
San Marino, CA 91108
(626) 405-2206 (direct)
dlewis@huntington.org

Education:

1997: Ph.D., History, University of California, Riverside, CA

Fellowships:

2003: Post-doctoral fellowship, Oxford University, England
2005: Post-doctoral fellowship, Smithsonian Institution Archives, Washington, DC
2006: Kenneth E. and Dorothy V. Hill Fellow, Huntington Library, San Marino, CA
2011: Fellow, Salzburg Global Seminar, Salzburg, Austria

Public History Experience:

2006 - present

**The Huntington Library
San Marino, CA**

Dibner Senior Curator for the History of Science & Technology. Responsible for the Huntington's history of science, technology, and medicine holdings, consisting of rare books and manuscript materials. Oversee a complex range of programmatic undertakings, collection development, supervisory work, and collection description and arrangement.

2010 - present

The Huntington Library

Chief Curator of Manuscripts. Responsible for the supervision, management and overall direction of the Manuscripts Department and its 18 full-time employees. While retaining my history of science duties and Dibner title, I have also been assigned these substantial administrative duties.

May 1994 - November 1995

**Los Angeles Times
Los Angeles, CA**

Company Historian & Corporate Archivist. Responsible for overall direction and administration of *Times*' History Center. Served as both interpretive historian and corporate archivist for The Times and its parent corporation, The Times Mirror Company.

August 1989 - July 1992

**Environmental Systems Research Institute
Redlands, CA**

Staff Writer/Editor. Responsible for writing and editing a variety of publications at this computer mapping company, including *ARC News*, a monthly publication with a circulation of 50,000.

Teaching Experience:	<p>Research Associate Professor, History Department, Claremont Graduate University, Claremont, CA.</p> <p>As well as teaching courses in the history of science, and in archival theory and practice, I oversee the History Department's archival internship program, evaluate comprehensive written exams for doctoral students, sit on doctoral oral qualifying exam committees, direct independent studies, teach practica, and advise students.</p> <p>Adjunct Associate Professor of Biological Sciences, Integrative & Evolutionary Biology Department, University of Southern California, Los Angeles, CA, 2009</p> <p>Adjunct Associate Professor of History, History Department, University of Southern California, Los Angeles, CA, 2009</p> <p>Instructor, California Rare Book School, UCLA, Los Angeles, CA, 2012-present</p>
Publications (Books): [List of articles, blogs and other writings available on request]	<p><i>The Feathery Tribe: Robert Ridgway and the Modern Study of Birds</i>, Yale University Press, April 2012 (also available as Kindle e-book and other e-formats; audio book also available from audible.com, as narrated by actor Alfred Gingold).</p> <p><i>Bones and Four Feathers: An Environmental History of Hawaiian Birds</i> [in process]</p> <p><i>The Book Everybody Read: A Census of Every Surviving Copy of Darwin's Origin of Species</i> [in process]</p> <p><i>Iron Horse Imperialism: The Southern Pacific of Mexico, 1880-1951</i>, University of Arizona Press, May 2007 (and issued in paperback Oct. 2008)</p> <p><i>Star Struck: One Thousand Years of the Art & Science of Astronomy</i> (co-authored with Ronald Brashear), Huntington Library Press/University of Washington Press, Winter 2000</p>
Professional Memberships:	<p>American Society for Environmental History, 2002-present - Alice Hamilton Prize Committee, 2006-2007 The Biodiversity Group, Board of Directors, 2014-16 Cooper Ornithological Society, Life Member Grolier Club, 2012-present Hawai'i Audubon Society, 2012-present History of Science Research Group (USC and the Huntington), co-chairman, 2004-present History of Science Society, 1998 – present Los Angeles History Research Group, 1997 – present Pasadena Audubon Society, 1999- present; Board of Directors, 2004-06. Society for Avian Paleontology and Evolution, 2012 – present Society for the History of Authorship, Reading and Printing, 2011 – present Society for the History of Natural History, 2004 – present Society for the History of Technology, 1998 – present Society of American Archivists, 1984 – present - Science & Technology Roundtable, Committee Member, 2002 - present Society of California Archivists, 1984 – present - President, 2006-2007 (elective office)</p>

SUSAN FOSTER JONES

Director of Education, Concord Museum
200 Lexington Road
Concord, MA 01742
978-369-9763
sfoster@concordmuseum.org

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A large black rectangular redaction box covers the right side of the page, starting below the contact information and extending down to the top of the Professional Experience section.**PROFESSIONAL EXPERIENCE:**

Director of Education, Concord Museum, Concord, MA (September 2009 – present)

- Responsible for developing, implementing and managing all educational programming for the Museum including school programs, public programs, family programs;
- Member of the Exhibition Planning Committee helping to plan exhibitions in temporary and permanent exhibit spaces and overseeing interpretation for all visitors;
- Manage Visitor Services and Museum Interpretive staff including guided tours, front desk services and overall museum experience;
- Collaborate with public schools, community colleges and local institutions to train teachers in Concord's history and the use of the Museum's collections in the classroom;
- Develop and expand curricula for school programs using object-based approaches and public school guidelines to keep programming current and engaging;
- Oversee Museum Educators related to school programs as well as their professional development and training;
- Supervise the Manager of Student, Group, and Family Learning who schedules all school programs and groups tours, customizes tours and school trips, and assists with all public programs;
- Supervise the Public Programs Coordinator who assists in the development and implementation of the museum's active public program offerings;
- Build relationships in the community and fosters fruitful outside collaborations.

Lead Educator, Commonwealth Museum and Massachusetts Archives, Boston, MA (2008 – 2009)

Education Coordinator, Commonwealth Museum and Massachusetts Archives, Boston, MA (2002 – 2008)

- Instruct daily museum field trip tours for large school groups;
- Lead adult, college student, and senior citizen tours through current exhibitions;
- Teach dynamic lessons in the museum classroom using primary source documents;
- Develop strong relationships with teachers and principals as part of organizing and scheduling in-school and on-site programs;
- Arrange use of traveling exhibits to local cultural centers, libraries, and town halls;
- Write, edit, and distribute museum publications and marketing materials to teachers;
- Designed and implemented curricula in the museum classroom specifically relating to the museum's collections and revised existing curricula;
- Collaborated on the creation and design of a classroom curriculum for state-wide distribution on John Adams and the Massachusetts Constitution;

- Developing and overseeing the creation of all programs for the new exhibition including in-museum educational kits, dynamic classroom programs, as well as guided tours.

Assistant Museum Director, Commonwealth Museum, Boston, MA (2008 – 2009) (additional position)

- Supervise museum staff members on projects and duties in the education department, special events, and the gift shop;
- Hire and supervise 6-month co-op interns from Northeastern University;
- Manage relationships with teachers and schools as well as coordinate all field trip groups and tours;
- Manage the budget for the new exhibition project including processing all invoices and assisting in the creation of contracts;
- Assist with applying for grants, presenting to funders, and creating fundraising materials.

PROFESSIONAL PRESENTATIONS:

- “Who cares about global warming...?”, New England Museum Association Annual Meeting, Fall 2013;
- “An Observant Eye; Thoreau through his Artifacts.” Northeast Regional Conference on Social Studies, April 2013.
- “Citizen Curation: Crowdsourcing, Community, and Content,” New England Museum Association Annual Meeting, Fall 2012;
- Encouraging Reflective Teaching Practice, New England Museum Association Annual Meeting, Fall 2011

PROFESSIONAL ASSOCIATIONS:

- Steering Committee Member, Greater Boston Museum Educators’ Roundtable (2005 – present)
- Co-Chair, Concord Historical Collaborative (2010 – 2014)
- Advisory Committee, Step Into Art, Inc., Newton, MA (2008 – present)

EDUCATION:

- Ed.M., Arts in Education, Harvard University Graduate School of Education
- B.A., Art History, Minor in Education, Magna Cum Laude, Mount Holyoke College

Pablo Frascioni
Bio 6/2014
www.pablofrascioni.net

Pablo Frascioni has made documentary films since 1969 when, at age 17, he won the National Newsweek-Bolex Documentary Film Contest with his film, *Redevelopment*. Since then he has made films about the U.S. bicentennial, urban gentrification, childhood literacy, artists, public art, civil liberties, and poetry. He has received 18 grants and fellowships from national, regional, and state entities including the National Endowment for the Arts, The National Endowment for The Humanities, and the American Film Institute.

His films, including *The Woodcuts of Antonio Frascioni*, *Towards the Memory of a Revolution*, *Survival of a Small City*, and *The Longing*, have been screened throughout the world, including the Festival Dei Popoli, Firenze, Italy; National PBS Broadcast; the Smithsonian Institution; The Museum of Modern Art; and The Margaret Mead Film Festival in New York, and received awards at the American Film Festival, the International Festival of Films on Art and Architecture, and the Black Maria Film Festival. He has worked as a cinematographer and editor for the American Civil Liberties Union, The Metropolitan Museum of Art, Asia Society, and Weston Woods Studios. He is currently completing *The Light at Walden*, based on Henry David Thoreau's *Civil Disobedience* and *Walden*, funded by The Park Foundation, and a grant from USC: Advancing Scholarship in the Humanities and Social Sciences; sponsored by the Center for Independent Documentary, Inc., in Massachusetts.

He is currently a Professor of Practice in the Production Division of the School of Cinematic Arts at USC, where he teaches editing; *Creating Poetic Cinema*; *Nature, Design and Media* (in the new Media Arts + Practice Division); and coordinates the first year of the graduate M.F.A. production program. He recently designed and taught the *USC-YouTube Creator Institute*; the *USC/Disney Studios Producing and Directing Class*; a seminar in *World Building* with Alex McDowell; a workshop at the USC Center for Excellence in Teaching on *Contemplative Pedagogies*; and was invited by the USC Provost to conduct seminars in *Transmedia and Political Engagement*, and, *Mindfulness, Mediation, and Guided Visualizations*. He has also taught at The New School; the State University of New York College at Purchase; Occidental College; the University of Hawaii; Cinecitta, Rome, Italy; the Communication University of China, Beijing; and the Beijing Film Academy.

His films have been distributed by: El Museo del Barrio, NYC, The American Federation of Arts, NYC; The Museum of Modern Art, NYC; and Filmmakers' Library, NYC.

Tracy Fullerton, M.F.A.
Associate Professor, Interactive Media, School of Cinematic Arts, USC

Education

1991 M.F.A (Cinema-Television Production), University of Southern California, Los Angeles, CA
1988 B.A. (Theater Arts/English Literature), University of California, Santa Cruz, CA

Appointments

2009 Electronic Arts Endowed Chair in Interactive Entertainment
2008 Associate Professor, School of Cinematic Arts, Interactive Media Division
Director, USC Game Innovation Lab
2005 Assistant Professor, School of Cinematic Arts, Interactive Media Division
Co-Director, USC Game Innovation Lab
2004 Visiting Assistant Professor, School of Cinematic Arts, Interactive Media Division
Co-Director, Electronic Arts Game Innovation Lab
1999 Adjunct Professor, School of Cinematic Arts, Interactive Media Division
1998 President and Founder, Spiderdance, Los Angeles, CA
1995 Creative Director, R/GA Interactive, New York, NY
1993 Creative Director, Interfilm, Inc., New York, NY
1991 Interactive Designer, Synapse Technologies, Los Angeles, CA

Selected Publications

Fullerton, Tracy, “What Games Do Well: Mastering Concepts in Play” in Postsecondary play: The role of games and social media in higher education. Tierney, W. G., Corwin, Z. B., Ragusa, G., & Fullerton, T. (Eds.). John Hopkins Press, forthcoming
Fullerton, T. (2014) Game Design Workshop: A Playcentric Approach to Creating Innovative Games, 3rd Edition. CRC Press, February 2014.
Fullerton, T., Malamed, L., Sharkasi, N., Vigil, J. (2009) Designing History: The Path to Participation Nation. ACM SIGGRAPH Video Game Symposium, New Orleans, LA, August 2009.
Fullerton, T. Fron, J. Pearce, C. Morie, J. (2008) Getting Girls Into the Game: Towards a ‘Virtuous Cycle’ Beyond Barbie and Mortal Kombat Yasmin Kafai, Carrie Heeter, Jen Sun & Jill Denner (eds), MIT Press, September 2008, pp.137-149.
Fullerton, T. (2008) Documentary Games: Putting the Player in the Path of History Playing the Past: Nostalgia in Video Games and Electronic Literature, Zach Whalen & Laurie Taylor (eds), Vanderbilt University Press, September 2008.

Selected Professional Activities

2012 Member of White House Office of Science and Technology Consortium on Games for Impact
2010 – 2012 Advisory board for Games for Change
2010 – 2012 Advisory board for NSF-funded project “Computer Game Design: An Interdisciplinary Approach to Addressing Underrepresentation in Computing”
2007 – 2009 Advisory board for NSF-funded Values@Play research project; test site for VAP curriculum
2006 – 2007 Director of International Game Developers Association Education SIG Curriculum Committee

Selected Projects

Collegeology – suite of games to improve college knowledge in underserved youth
Participation Nation – cross-media game to teach U.S. Constitutional history
The Night Journey – art game about the spiritual journey in collaboration with Bill Viola
Cloud – experimental game focusing on meditative and non-violent play

Selected Honors

Indiecade 2012 winner: category “Impact” (Reality Ends Here)
Indiecade 2011 finalist: category “Impact” (Application Crunch)
Indiecade 2008 award winner: category “Sublime Experience” – for the most emotional or social impact and profound theme (The Night Journey)
Nominated for a Rockefeller Renew Media Arts Fellowship 2008

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<http://interactive.usc.edu/members/todd>

Todd Furmanski

E-mail: (b) (6)

Summary:

I am a researcher at the University of Southern California School of Cinematic Arts, working towards my PhD in Media Arts and Practice. My research interests include virtual reality, emergent algorithms and their use in procedural content generation, and the history of digital media. I recently completed my examinations in the spring of 2014, and currently spend my time on a variety of research projects with both the Game Innovation Lab and the World Building Media Lab while laying the groundwork for my dissertation.

Education:

USC Media Arts + Practice, PhD Candidate
USC School of Cinema-Television, MFA Interactive Media
Pomona College, BA Media Studies

Academic History:

2013-Present: Research Associate, World Building Media Lab USC
2007-Present: Research Associate, Game Innovation Lab USC
2004-2005: Research Assistant for Immersive/Virtual Reality lab at USC School of Cinema-Television
2001: Taught course in 3-D modeling and animation at Pomona College
1997: Taught 7th and 8th graders computer programming during high school.

Research Projects:

- 2014 **Walden, A Game: Programmer**
-Developed underlying codebase for adaption of Thoreau's classic work
-Game encourages user to explore a recreation of Walden Pond in 1845
-Integrated XML notation with Unity3D to allow changes in seasons and weather
- 2013 **Leviathan Project: Programmer**
-Intel-funded project based on award-winning young adult "Leviathan" series
-Augmented reality demonstration at CES
-Integrated pathfinding script system for multiple agent-shared story space
- 2013 **Body Scrub: Programmer**
-Performance installation using Microsoft Kinect
-Depth-based animations easily crafted, system useable by non-programmers
- 2012 **World By Frame: Designer/Programmer**
-Stereoptic installation rendering virtual space in discrete frames
- 2012 **Myriad: Designer/Programmer**
-Swarm-based motion-captured interactive visualization
- 2011 **Wu Xing, Five Processes: Designer/Programmer**
-Simulated Cellular Automata driving multiple geologic forces in realtime 3D.

- 2008 **Wide5 Head-Mounted Display Virtual Spaces: Programmer**
 -Integrated Polhemus magnetic tracker with experimental wide-angle HMD.
- 2006 **Night Journey: Programmer**
 -A dynamic interactive space directed by media artist Bill Viola
 -Combined video with navigable virtual space
- 2005 **Artificial Life Models in Software, Adamatzky & Komosinski (eds)**
 -Contributed to book chapter on simulated ecosystems and structures
- 2005 **Biota/DigitalSpaces: Designer**
 -Participated in direction of a Life Simulator shared over the internet
 -Responsible for design of Artificial Life architecture
- 2005 **Here Be Dragons: Programmer/Designer**
 -Graduate Thesis involving Procedural world, city, and life generation
 -Combined artificial life algorithms with environmental structures
 -Virtual Reality stereoptic interface
- 2005 **Dyadin: Designer**
 -Showcased at the 2005 Game Developers Conference
 -Independent Game Festival Student Showcase winner
 -Worked on a team of 6, developed complete game in four months
- 2004 **Chojo: Designer/Artist**
 -Mobile Augmented Reality System
 -Combination of GPS, 3D Environments, and Cellular Automata
- 2003 **Panopticon: Designer/Artist/Programmer**
 -Expressionist Computer Game using hand-drawn graphics

Technical Skills:

Programming Languages and Systems: C, C++, C#, OpenGL, JAVA, Lingo, HTML
Software Applications: Unity3D, Microsoft Visual Studio, 3D Studio Max, Adobe Photoshop, Alias Wavefront Maya, Microsoft Visual Studio, Processing

Best Paper, SIGGRAPH Video Game Symposium 2007 (“Journey of Discovery: The Night Journey Project as Video/Game Art”)
Slamdance Finalist (fIOW)
Slamdance Design Philosophy Award 2006 (Cloud)

Selected Lectures

“Finer Fruits: Experiments in Life and Play at Walden” Chicago Humanities Festival, November 2012.
“Walden, a game” 5D: the City and the Book at USC, Los Angeles, CA, September 2012.
“Case Study: Reality Ends Here” Games for Change, New York, NY, June 2012.
“Provocations in Play: Experimental Designs from the USC Game Innovation Lab” Clash of Realities, Koln, Germany, May 2012.
“Provocations in Play: Experimental Designs from the USC Game Innovation Lab” Sarah Lawrence College, February 2012.
“Serious Play: Meaningful Video Games” Chicago Humanities Festival, October 2011.
“Granularity, a Consideration of the Textures of Games and Cinema” UC Santa Cruz Inventing the Future of Games Symposium, April 2011.
“Reflections on The Night Journey” 3G Summit Columbia College, Chicago IL, August 2010.
“Experimental Game Design: Process, Provocation and Play” Irvine Center for Computer Games and Virtual Worlds Lecture Series, UC Irvine, June 2010.
“Documentary Games: Playing with Reality” Korea Serious Games Conference, September 2009.
“Participation Nation: Designing Games that Engage Students in History and their Own Futures” Microsoft Research, August 2009.
“How We Play: Game Innovation and the Significance of Play” Digital Humanities Lecture Series, Dartmouth, Hanover, NH, April 2009.

KUROSH VALANEJAD

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EMPLOYMENT

2006-present

University of Southern California, School of Cinematic Arts, Interactive Media Division,

Game Innovation Laboratory, Los Angeles, California

Art Director and Research Artist

Walden, a game, learn to live like Henry David Thoreau while at Walden Pond, Director/Developer: Tracy Fullerton

The Body Scrub Device, a virtual fun-house mirror

The Cat and the Coup, a non-fiction videogame about Dr. Mohammad Mossadegh, Collaborator: Peter Brinson

The Night Journey, an art game about spiritual enlightenment, Director/Collaborator: Bill Viola

ReImagining California, simulates congressional redistricting in a web-based video game, Director: Chris Swain

Immune Attack, next-generation biology education, Collaborator: Federation of American Scientist

2001-2006

University of Southern California, Institute for Creative Technologies, Marina del Rey, California

Principal Investigator

Using Machinima to Rapidly Create Interactive Training Movies

Art Director, Interactive and Immersive 3D Environments

Leaders: Leadership Training using a branching narrative

SASO: Natural and Body Language Research and Development Research

Common Projects Modeler, Interactive and Immersive 3D Environments

SEE: Sensory Environments Evaluation, including Olfactory & Infrasound

1993-2006

MaNose Studios, Aspen, Colorado

Computer Graphics Component of a Fine-Arts Collaborative

The Kneeler, Multi-Sensory Interactive Installation

WKRPinc., Erotic Wallpaper and Silks

1999-2000

Sony Pictures' Imageworks, Culver City, California

Maya Instructor and Senior Production Services Technician

Hollowman, Feature Film

1989-96

Design Workshop, Inc., Land Planners, Aspen, Colorado

Virtual Model Builder

1988-89

Ohio State University, Instructional Design and Technology Department, Columbus Ohio

HyperCard Programmer

SELECTED COURSES, LECTURES AND WORKSHOPS

Used *The Cat and the Coup* videogame to teach Mossadegh-era history in Modern Iran History courses (2014)

University of California, Irvine; Professor Roxanne Varzi

University of California, Santa Barbara; Professor Janet Afary

University of Southern California; Professor Hani Khafipour

“Creative Responses to Personal and Sociopolitical Catastrophe”, California College of the Arts, Oakland

Course: Creative Responses to Catastrophe, Instructor Anita AmirRezvani (2013)

“On Collaboration, and the Importance of Experimentation” San Jose State University, College of Humanities and the Arts, Instructor: James Morgan (2013)

“Decoding The Cat and the Coup”, Dr. Martin Luther King Jr. Library at San Jose State University, Persian Studies Program, Director/Organizer: Dr. Persis Karim (2013)

“The Narrative Architecture of Learning Games” University of Southern California, Los Angeles, ENG 620: Literature and Interdisciplinary Studies, Professor Alice Gambrell, (2012)

“Deconstruction The Cat and the Coup” Singapore-MIT GAMBIT Game Lab, Massachusetts Institute of Technology, IAP – Unpacking *Super Serious* Serious Games. Instructors: Konstantin Mitgutsh and Narda Alvarado, Cambridge, MA via Skype (2012)

4 week workshop on Additive Manufacturing in CNTV602: *Practice and Media Arts*, with Instructor: Andreas Kratky, University of Southern California (2011)

Visions & Voices; *Get Your Hands Dirty with the Arts: From Computer File to Object*, Co-taught with Ann Page, University of Southern California (2011)

Co-presented “The Night Journey” with Bill Viola, Summer Lecture Series, Anderson Ranch Arts Center, Snowmass Village, Colorado (2010)

FA436: *Art and Technology*, Co-taught with Ann Page and Skip Rizzo, USC Roski School of Fine Art, (2008)

EDUCATION

2013- present

MFA Candidate, USC School of Cinematic Arts, Digital Art and Animation Dept., Los Angeles, CA

1996-99

Self-Designed Curriculum in Computer Animation at Los Angeles-Area Schools

Gnomon School of Visual Effects, Hollywood, CA

Santa Monica College Academy of Art and Design, Santa Monica CA

American Film Institute, Hollywood, CA

Art Center College of Design, Pasadena, CA

Los Angeles Macintosh Group, Santa Monica, CA

Silicon Studios, Santa Monica, CA

1987-88

Continuing Education in Computer Graphics, Ohio State University, Columbus

1983-87

Bachelor of Science, Computer Science, University of Oklahoma, Norman

BIOGRAPHY

Kurosh ValaNejad is a research artist living in Los Angeles, California and working as the art director of the USC Game Innovation Lab. Since 2001 at USC, he has helped develop a wide range of well-meaning computer applications on topics including Immunology, Gerrymandering, Sexual Harassment, Cultural Sensitivity, Democracy, and Spiritual Enlightenment; with funding by the National Science Foundation, the National Endowment of the Arts, and USC’s Annenberg Center and the Advancing Scholarship for the Humanities and Social Science.

Kurosh has managed to remain an [amateur](#) by continually changing the field to which he applies his computer-graphics skills. During the last 25 years, he has worked with artists and scientists in a variety of disciplines; including land-planning, architecture, installation, animation, virtual reality, artificial intelligence, and now computer games. The resulting works are evidence of the synergistic value of collaboration.

Lucas Peterson

GAME LAB ARTIST

PERSONAL SUMMARY AND GOALS

Graduated with a Bachelor's Degree from the USC Roski School of Fine Arts, with an emphasis in traditional 2D Drawing and Graphic Design. Transitioned into a 2D/3D Generalist Artist to meet the needs of projects developed by the Game Innovation Lab within the USC Interactive Media & Games Division.

Goals - Achieving a strong proficiency with the Unity game engine, improved research skills, attend academic and games industry events, expanded artistic and game design skillsets.

RESEARCH PROJECTS (March 2012-June 2014)

Game Innovation Lab, *Walden, a game (Ongoing)*

Roles - 3D Modeler, 2D Texturer, Animator, Set Dresser, Historical Researcher

Goals - Achieve an optimized, polished visual experience. Share a new type of game with the world, a virtual Walden in which one can reflect on life through the eyes of Thoreau.

FutureBound Games, *FutureBound!*

Roles - 3D Modeler, Animator

Goals - Provide a fun, learning experience for young students that can engage them with the idea of turning their passions into careers, even when faced with fears and self-doubt.

FutureBound Games, *Graduate Strike Force*

Roles - Concept Artist, 3D Modeler, 2D Texturer, Animator

Goals - Provide a fun experience for young students that can also engage them with the realities of paying for higher education and the implications of their decisions years into the future.

Microsoft Research/ChronoZoom, *Chrono Scouts (Ongoing)*

Roles - Prototyping, 2D Artist, Graphic Designer

Goals - Create a polished card game that engages players in a game of combining fragments of WWI history into a compelling story about the great war.

NASA/NSF, *Life Underground (Ongoing)*

Roles - Prototyping, Researcher

Goals - Craft a rich, compelling experience in which players explore extreme environments in search of extreme life forms, using scientific tools to make profound discoveries.

Michael Sweet

Composer, Sound Designer, Educator

Mobile (b) (6)

SUMMARY BIO

Over the past two decades in music, Michael is an accomplished audio composer and has been the audio director for more than 100 award winning video games. His work can be heard on the X-Box 360 logo and on award winning games from Cartoon Network, Sesame Workshop, PlayFirst, iWin, Gamelab, Shockwave, RealArcade, Pogo, Microsoft, Lego, AOL, and MTV, among others. He has won the Best Audio Award at the Independent Games Festival, the BDA Promax Gold Award for Best Sound Design, and has been nominated four Game Audio Network Guild (GANG) awards.

Over the last 6 years, Michael Sweet has led the development of video game scoring curriculum at Berklee College of Music. He has developed curriculum for nine classes that teach the art of video game composition, and helped establish the Minor in Video Game Scoring at the college. Michael is also a contributor to organizations that pioneer the advancement of standards for interactive music and sound design including the IASIG and GANG. As a teacher and communicator Michael has lectured at many universities and prominent conferences in interactive music and sound design including NYU, SVA, Game Developers Conference, Audio Engineering Society, and Parsons The New School of Design.

Before Berklee, Michael was the co-founder and creative director of Audiobrain, a company dedicated to breaking boundaries with interactive sound design and music. Michael's creative vision for 7 years had led Audiobrain to develop many emotionally immersive award-winning experiences for games (i.e. Xbox 360, Diner Dash), broadcast (i.e. NBC Sports and Olympics) and sonic branding. Audiobrain continues to be successful, and Michael consults on many of their projects. In broadcast Michael's work can be heard in many network identities including HBO, VH1, Comedy Central, CNN, General Motors, and NASDAQ. In addition Michael's digital artistry has led him to ground breaking work in the creation of interactive scores for digital design installations that have traveled the world.

PROFESSIONAL EXPERIENCE

- | | |
|----------------|--|
| 2008 – Present | Berklee College of Music
Artistic Director Video Game Scoring, Film Scoring Department
Directed and developed the video game scoring curriculum through the Film Scoring department. Taught the next generation of video game composers. Established collaborative relationships for video game classes with USC, SCAD, MIT, SPSU, Emerson and Georgia Tech. Frequent guest on NPR and other news organizations, and interviewed about his expertise about education of music in video games. Helped bring many prominent video game composers to Berklee. Persuaded Sony and others to donate hardware and software to the college. |
| 2001 – 2008 | Audiobrain LLC, New York City
Co-Founder, Creative Director
Directed and led team of composers to create award winning music and sound design for games, Internet, interactive applications and television. In addition, coordinated business development, technology and production internship programs. |
| 1997 - 2001 | Blister Media LLC, New York City
Co-Founder, Creative Director
Duties Included: Music Production, Composition, Sound Design, Business Development, Technology Development
Wrote and directed award winning music and sound design for the Internet, games, film and television. Oversaw development of software for delivery of music and sound design. Projects included many games for Shockwave.com, SesameWorkshop, Lego, and award winning HBO Zone broadcast packaging

Projects Included: HBO, Sesame Workshop, NASDAQ Marketplace, Kodak, Shockwave, CNN, TCI, VH1, American Express, Millennium Dome |
| 1990 - 1996 | Elias Associates, New York City
Last Position Held: Creative Director for New Media
Elias earned 'Best Music Production House' three times voted by Backstage Shoot Magazine while employed there. Composed and directed music and sound design for the interactive division for award winning games, CD-ROMs and Internet applications. Duties also included |

recording and mixing commercials, album work, commercial and film recording and mix engineer.

PROFESSIONAL SPEAKING

- Multiple 2005-2014 Game Designer's Conference, San Francisco
2014 Panel: IASIG Game Audio Legends Panel
2014 Session: Teaching Games with Games: 7 Exercises in Play
2013 Roundtable: Game Audio Education
2011 Session: Game Audio Education: A Case Study
2011 Session: Collaboration Across Disciplines and Programs Panel
2005 Session: Audio Innovation in Downloadable Games
- Multiple 2005-2013 Audio Engineering Society Conference (AES), London, New York, San Francisco
2013 - Game Audio: A Primer and Educational Resources
2013 - Professional Game Audio—Opportunities In The Mobile Space
2012, 2010 - Careers in Game Audio Panel
2011 – Balancing Foundational Aesthetic and Technical Education in Game Audio
2011, 2009 - Education in Game Audio Panel
2005 - State of the Art in Game Sound Panelist
- 2004-2011 IASIG Annual GDC Meeting
Introduced and Presented the Interactive Audio Education Developments as Co-Chair
- 2008, 2007 Berklee College of Music
Guest lectured in Game Audio – Adaptive techniques, Toolsets, and Working with Game Developers
- 2006, 2004 Film Music Network, NYC
Music for Video Games Panelist
- 2005 Montreal Game Summit
Session: Innovation in Game Music and Sound, Where is it?
- 2004 International Game Developers Association / Siggraph, NYC
Debate Panel: "Hi Rez Vs. Lo Rez"

BOOKS, ARTICLES, AND PUBLICATIONS

- 2014, Writing Interactive Music for Video Games: A Composer's Guide by Michael Sweet, Expected Release 10/6/14. Addison-Wesley Professional, ISBN: 0321961587
- 2014, Game Design Workshop: A Playcentric Approach to Creating Innovative Games, Third Edition by Tracy Fullerton ISBN: 1482217163 Sidebar "Using Audio as a Game Feedback Device" - pp. 369-371 by Michael Sweet
- 2006-2012, IASIG Game Audio Education Initiative, Co-Chair (2004-2009) and Contributor
- 2002, IASIG Web Audio Report, Contributor
- 2000, Boards Magazine, The 10 Most Common Misconceptions About Audio for the Internet

AWARDS AND HONORS

- 2005 GANG Finalist Best Score for Edutainment Title for Cartoon Network Teen Titans
2004 GANG Finalist Best Interactive Score for Sveerz
2004 GANG Finalist Most Innovative Use of Sound for Sveerz
2004 GANG Finalist Best Score for Edutainment Title for Lego Worldbuilder
2002 RealArcade Best Music for a Game for WordUP
2001 GDC Best Audio Finalist For Shockwave's BLiX
2000 Game Designers Conference Independent Game Festivals Best Audio: For BLiX
1998 NY Festivals Gold Award For the Partnership for a Drug Free America Radio Campaign

Curriculum Vitae

Alexander Mathew

(b) (6)

Education

University of Southern California, Interactive Media and Games Division – Master of Fine Arts in Interactive Media | August 2012 to May 2015 (*Anticipated*)

University of California, Santa Cruz – Bachelor of Science in Computer Science: Computer Game Design | September 2007 to June 2011

Tohoku University – Education Abroad Program | March 2005 to August 2007

Selected Work and Experience

Designer, *Walden, a game* | June 2013 to Present

A digital game adaptation of Henry David Thoreau's *Walden*. Designed and implemented animal pathing and distributed animals throughout the world.

Puzzle and Game Designer, *RIME* | May 2014 to Present

Designed and prototyped puzzles for *RIME*, an upcoming Playstation 4 game, with Spain-based developer Tequila Works.

Designer, *The Observatory* | August 2013 to May 2014

A game about exploration, discovery, environmental narrative, and flight. Designed narrative, mechanical, and environmental elements and translated the game into Japanese.

Designer and Programmer, *Underneath* | September 2013 to December 2013

A procedurally modelled cave exploration game. Designed world, ran playtests, implemented special event system, created art, and created editor tools.

Designer and Programmer, *Homework From Another World* | June 2013 to June 2013

An Oculus Rift based stealth game. Designed and implemented movement mechanics and the AI system.

Teacher, Japanese Exchange and Teaching | August 2011 to July 2012

Taught English on a small island in southern Japan, as well as taught Game Design and Parkour classes.

Creative Director, *Subsist* | August 2010 to May 2011

A game about hunger and morality in a fictional third-world country. Led a team of nine as part of a senior capstone project.

Design Intern, Namco Networks America, Inc. | June 2009 to September 2009

Worked with a team to design a number of unannounced game. Created and prototyped the ingame interface for *Puzzle Quest 2* for iOS.

Undergraduate Researcher, CAIN | September 2008 to June 2009

Developed a Character Affinity and Intentions Network in ABL working under Anne Sullivan and Michael Mateas.

Undergraduate Researcher, Ishiguro Labs | September 2008 to June 2009

Assisted with the design and creation of multiple soft bodied robots and robotic systems of decentralized control working under Koichi Takeda and Akio Ishiguro.

Talks and Panels

"Games and Learning: Scoring Points for Art and Science", STEM and Beyond, USC, April 2014.

"Emotion of Videogames", Edinburgh Game Symposium 2013.

"Game Jams!", Kyushu University, January 2013.

"CAIN and ABL", UC Santa Cruz Undergraduate Research Symposium, May 2010.

Honors and Awards

Selected to present *Homework From Another World* at E3 through IndieCade's Oculus Rift Showcase.

"Best Fictional World" award for *Subsist* at The Sammys 2011.

Curriculum Vitae

Logan Ver Hoef

(b) (6)



Education

University of Southern California, Interactive Media Division – Master of Fine Arts in Interactive Media | August 2011 to May 2014

University of California, Santa Cruz – Bachelor of Science in Computer Science: Computer Game Design | Jan 2008 to April 2010

American River College | August 2005 to December 2007

Selected Work and Experience

Designer, *Walden, a game* | January 2012 to Present

A digital game adaptation of Henry David Thoreau's *Walden*. Designed resource distribution of the game world, world narrative, and other miscellaneous design. Implemented environmental systems and effects.

Director, *The Observatory* | August 2013 to May 2014

A game about exploration, discovery, environmental narrative, and flight. Led team of ten as a director, designed world and narrative, implemented gameplay, environment, and audio, and created 3D art assets.

Feel Engineering Intern, thatgamecompany, LLC | May 2013 to August 2014

Designed mechanics, implemented interactions, ran playtests, and built levels for an unannounced game.

Designer and Programmer, *Deep Blue Sky* | September 2012 to December 2012

An open-world game about the sensation of winged flight. Designed world, ran playtests, implemented flight physics and third person camera, and created editor tools.

Designer and Programmer, *Grasshopper* | January 2012 to May 2012

A platformer about zen and the eightfold path. Designed theme, mechanics, and levels. Programmed platforming mechanics and core game logic.

Engineering Intern, OnLive, Inc. | June 2009 to September 2009

Development and implementation of OnLive's ODK, the platform SDK allowing games to integrate into the OnLive Game Service. Included implementation of APIs, development of game samples, documentation, builds, and debugging.

Creative Director and General Programming, *Project Villain* | September 2008 to June 2009

A video game about the theatricality of supervillainy and the battle for attention and notoriety. Created and prototyped idea, wrote design documents, ran playtests, and led project design. Implemented major subsystems including character navigation, collision resolution, and core game logic.

Design, Programming, and 2D/3D Artist, *The Factory* | January 2008 to September 2008

A puzzle game where you help a robot escape a derelict factory by manipulating the environment. Created for a game design course and then later published on Xbox LIVE Community Games. Co-designed concept, character, mechanics, and level design; wrote collision detection, collision resolution, and character AI; produced 2D and 3D art assets for game.

Exhibitions and Honors

Selected Exhibitor, *Deep Blue Sky* | Edinburgh Game Symposium 2013

Selected to demo game *Deep Blue Sky* at music-focused symposium.

Work samples for Game Innovation Lab

The Game Innovation Lab is the premier center for experimental game design and research at USC. Founded in 2004, the lab is directed by Professor Tracy Fullerton. The mission of the lab is to pursue experimental design of games in cultural realms including art, science, politics and learning. The international success of games that have emerged from the lab, including *Cloud*, *fIOW*, *Darfur is Dying*, *The Cat and the Coup* and *The Night Journey*, have made it a hub for indie and experimental games culture in Los Angeles. Our Playthink Salons attract speakers and participants from across the city and across disciplinary boundaries.

Associated faculty include award winning game designers Richard Lemarchand (*Uncharted* series) and Peter Brinson (*Waco*, *The Cat and the Coup*) as well as pioneering games user researcher Dennis Wixon. Research staff include up and coming game designers Elizabeth Swensen and Sean Bouchard, as well as the talented digital media artists Kurosh ValaNejad, Todd Furmanski and Lucas Peterson. Graduate student researchers in the lab have gone on to stellar careers at Microsoft, Electronic Arts, Zynga and more.

The lab has a strong history of collaboration with cross-disciplinary experts in many fields, including education and technology. Our commitment to an iterative, participatory process brings users, stakeholders and designers into constant dialogue. Current projects, such as the *Collegeology* suite of games *Walden*, *a game*, and the *Chrono Cards* History games are supported by Microsoft Research, The Gates Foundation, The National Endowment for the Arts, The Gilbert Foundation, and The Department of Education.

Lab Project Reel:

https://www.dropbox.com/s/a74m5guh56ii8v/GILsampler_2min_1280.mov

Individual Project Trailers:

The Night Journey: https://www.youtube.com/watch?v=zL1_twK2NDc

Cloud: https://www.youtube.com/watch?v=qAIN2_ycM4Y

FutureBound: https://www.youtube.com/watch?v=MnzOM0lke_M

Graduate Strike Force: <https://www.youtube.com/watch?v=u1kL1OAK2B8>

Reality Ends Here:

<https://www.youtube.com/watch?v=dN0LOYMa39s&feature=youtu.be>



NATIONAL ENDOWMENT FOR THE

Humanities

Budget Form

OMB No 3136-0134

Expires 7/31/2015

Applicant Institution: USC Game Innovation Lab

Project Director: Tracy Fullerton

Project Grant Period: 01/01/2015 through 12/31/2015

[click for Budget Instructions](#)

	Computational Details/Notes	(notes)	Year 1	(notes)	Year 2	(notes)	Year 3	Project Total
			01/01/2015- 12/31/2015		01/01/2016- 6/31/2016		01/01/20__- 12/31/20__	
1. Salaries & Wages								
Todd Furmanski		25.0%	\$ [REDACTED]	0.0%	\$0	%		\$ [REDACTED]
Kurosh ValaNejad		22.0%	\$ [REDACTED]	0.0%	\$0	%		\$ [REDACTED]
Lucas Peterson		25.0%	\$ [REDACTED]	0.0%	\$0	%		\$ [REDACTED]
						%		\$0
		%		%		%		\$0
		%		%		%		\$0
2. Fringe Benefits								
		32.8%	\$ [REDACTED]	32.8%	\$0			\$ [REDACTED]
								\$0
3. Consultant Fees								
Honorariums for advisors		5@500	\$2,500					\$2,500
4. Travel								
Advisory mtg flight/hotel		1 person	\$ [REDACTED]					\$ [REDACTED]
								\$0
5. Supplies & Materials								
Website hosting			\$500					\$500
6. Services								
Michael Sweet -audio/composer			\$ [REDACTED]					\$ [REDACTED]
7. Other Costs								
Software			\$4,000					\$4,000

8. Total Direct Costs	Per Year		\$83,334		\$0	\$0	\$83,334
9. Total Indirect Costs							
Federal Indirect Rate (cost shared)	Jan 2015 - June 2015	44.5%	\$18,542		\$0	\$0	\$18,542
Federal Indirect Rate (cost shared)	July 2015 - Dec 2016	45.0%	\$18,750	45.0%	\$0		\$18,750
Actual Indirect Cost		20.0%	\$16,667	20.0%	\$0		\$16,667
10. Total Project Costs	(Direct and Indirect costs for entire project)						\$137,292
11. Project Funding	a. Requested from NEH <div> Outright: \$100,000 Federal Matching Funds: \$0 TOTAL REQUESTED FROM NEH: \$100,000 </div> b. Cost Sharing <div> Applicant's Contributions: \$0 Cost shared indirects: \$37,292 Third-Party Contributions: \$0 Project Income: \$0 Other Federal Agencies: \$0 TOTAL COST SHARING: \$37,292 </div>						
12. Total Project Funding							\$137,292

Total Project Costs must be equal to Total Project Funding ----> (\$137,292 = \$137,292 ?)
Third-Party Contributions must be
greater than or equal to Requested Federal Matching Funds ----> (\$0 ≥ \$0 ?)



DEPARTMENT OF HEALTH & HUMAN SERVICES

Program Support Center
Financial Management Service
Division of Cost Allocation

DCA Western Field Office
80 7th Street, Suite 4-800
San Francisco, CA 94103

JUL 09 2012

Robert Johnson
Assoc. Senior V. P., Financial & Business Services
University of Southern California
University Park
Los Angeles, CA 90089-0011

Dear Mr. Johnson:

A copy of an indirect cost/fringe benefits Negotiation Agreement is attached. This Agreement reflects an understanding reached between your organization and a member of my staff concerning the rate(s) that may be used to support your claim for indirect costs on grants and contracts with the Federal Government. Please have the Agreement signed by a duly authorized representative of your organization and return it to me BY FAX, retaining the copy for your files. We will reproduce and distribute the Agreement to the appropriate awarding organizations of the Federal Government for their use.

An indirect cost and fringe benefits rate proposal together with supporting information are required to substantiate your claim for costs under grants and contracts awarded by the Federal Government. Thus, your next indirect cost proposal based on your fiscal year ending 06/30/14 is due in our office by 12/31/15, and your next fringe benefits proposal based on your fiscal year ending 6/30/12 is due by 12/31/12.

Sincerely,

A handwritten signature in black ink, appearing to read "Arif Karim", is written over a horizontal line.

Arif Karim, Director
Division of Cost Allocation

Attachments

PLEASE SIGN AND RETURN THE NEGOTIATION AGREEMENT BY FAX

COLLEGES AND UNIVERSITIES RATE AGREEMENT

EIN:

DATE: 06/26/2012

ORGANIZATION:

FILING REF.: The preceding
agreement was dated
08/19/2011University of Southern California
University Park
Los Angeles, CA 90089-0011

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES

RATE TYPES: FIXED FINAL PROV. (PROVISIONAL) PRED. (PREDETERMINED)

EFFECTIVE PERIOD

<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE(%) LOCATION</u>	<u>APPLICABLE TO</u>
PRED.	07/01/2011	06/30/2012	63.00 On-Campus	Organized Res.
PRED.	07/01/2012	06/30/2014	64.00 On-Campus	Organized Res.
PRED.	07/01/2014	06/30/2015	64.50 On-Campus	Organized Res.
PRED.	07/01/2015	06/30/2016	65.00 On-Campus	Organized Res.
PRED.	07/01/2011	06/30/2016	26.00 Off-Campus	Organized Res.
PRED.	07/01/2011	06/30/2016	45.00 On-Campus	Instruction
PRED.	07/01/2011	06/30/2016	26.00 Off-Campus	Instruction
PRED.	07/01/2011	06/30/2016	30.50 On-Campus	Other Spon Act
PRED.	07/01/2011	06/30/2016	26.00 Off-Campus	Other Spon Act
PRED.	07/01/2011	06/30/2016	26.00 Off-Campus	Info Sci Inst
PRED.	07/01/2011	06/30/2016	26.00 Off-Campus	Ctr Creative Tech

<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE (%)</u>	<u>LOCATION</u>	<u>APPLICABLE TO</u>
PROV.	07/01/2016	Until Amended		(1)	

*BASE

(1) Use same rates and conditions as those cited for fiscal year ending June 30, 20116

*BASE: Modified total direct costs, consisting of all salaries and wages, fringe benefits, materials, supplies, services, travel and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract (regardless of the periods covered by the subgrant or subcontract). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subgrant and subcontract in excess of \$25,000.

The off-campus base shall exclude facilities rental costs and operations and maintenance expenses from the direct cost items of materials and supplies and services.

ORGANIZATION: University of Southern California

AGREEMENT DATE: 06/26/2012

SECTION I: FRINGE BENEFIT RATES**

<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE(%)</u>	<u>LOCATION</u>	<u>APPLICABLE TO</u>
PRED.	7/1/2012	6/30/2014	32.80 (1)	All	All Employees
FIXED	7/1/2012	6/30/2013	6.00 (2)	All	Info Sci Inst
FIXED	7/1/2012	6/30/2013	6.60 (2)	All	Ctr Creative Tech
FIXED	7/1/2012	6/30/2014	22.50 (3)	All	Post Docs

**** DESCRIPTION OF FRINGE BENEFITS RATE BASE:**

(1) Direct salaries and wages including vacation, holiday, and sick pay of faculty and staff personnel only. Rate does not apply to student employees, Research Assistants or Teaching Assistants.

(2) Direct salaries and wages excluding all fringe benefits.

(3) Direct salaries and wages including vacation, holiday and sick pay. This rate is applicable for post docs who received their hire notification after 7/1/12.

ORGANIZATION: University of Southern California

AGREEMENT DATE: 06/26/2012

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

This organization uses a fringe benefit rate which is applied to salaries and wages for both budgeting and charging purposes for Federal projects. The following fringe benefits are included in the fringe benefit rate:

SOCIAL SECURITY, RETIREMENT PLANS, HEALTH AND DENTAL, UNEMPLOYMENT, WORKERS COMPENSATION, SABBATICAL LEAVE, TUITION REMISSION, LIFE INSURANCE, AND MISCELLANEOUS EMPLOYEES SERVICES. Beginning 07/01/99, the fringe benefit rate includes only employee tuition remission. A separate rate is also applied for the Information sciences Institute and the Centers for Creative Technologies for vacation and personal days off.

TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims for the costs of these paid absences are not made except for paid absences that have been earned but not taken when an individual separates from the university prior to the completion of the grant, contract or other agreement.

The cost of vacation and personal days off are included in the Information Sciences Institute and the Centers for Creative Technologies fringe benefit rates. Federal projects must be credited for salaries and wages for periods when employees are on vacation or personal days off. Holiday, sick leave pay, and other paid absences are included in salaries and wages and are charged to Federal projects as part of the normal charge for salaries and wages.

DEFINITION OF OFF-CAMPUS: A project is considered off-campus if the activity is conducted at locations other than in University owned or operated facilities and indirect costs associated with physical plant and library are not considered applicable to the project.

Projects conducted partially on-campus and partially off-campus: Actual costs will be apportioned between on-campus and off-campus sites consistent with where the work is performed and each portion will bear the appropriate on-campus or off-campus rate.

DEFINITION OF EQUIPMENT

Equipment is defined as tangible nonexpendable personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.

The rates relating to the Information Sciences Institute (ISI) and Centers for Creative Technologies (CCT) are effective for the periods identified in the negotiation agreement provided that the ISI and CCT funding or costing mechanisms now in place remain unchanged.

This rate agreement updates the fringe benefits only.

ORGANIZATION: University of Southern California

AGREEMENT DATE: 06/26/2012

SECTION III: GENERAL**A. LIMITATIONS:**

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been recorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATE:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Office of Management and Budget Circular A-21 Circular, and should be applied to grants, contracts and other agreements covered by this Circular, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:

University of Southern California

(INSTITUTION)

(SIGNATURE)

Robert Abeles

(NAME)

Senior Vice President, Finance and Chief Financial Officer

(TITLE)

7/9/2012

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)

(SIGNATURE)

Arif Karim

(NAME)

Director, Western Field Office

(TITLE)

6/26/2012

(DATE) 0218

HHS REPRESENTATIVE:

Patrick Smith

Telephone:

(415) 437-7820

Walden, a game: images and other assets

Walden walkthrough video: <http://youtu.be/Y7L7fgZoW4k>

Screenshots of the game (work in progress):



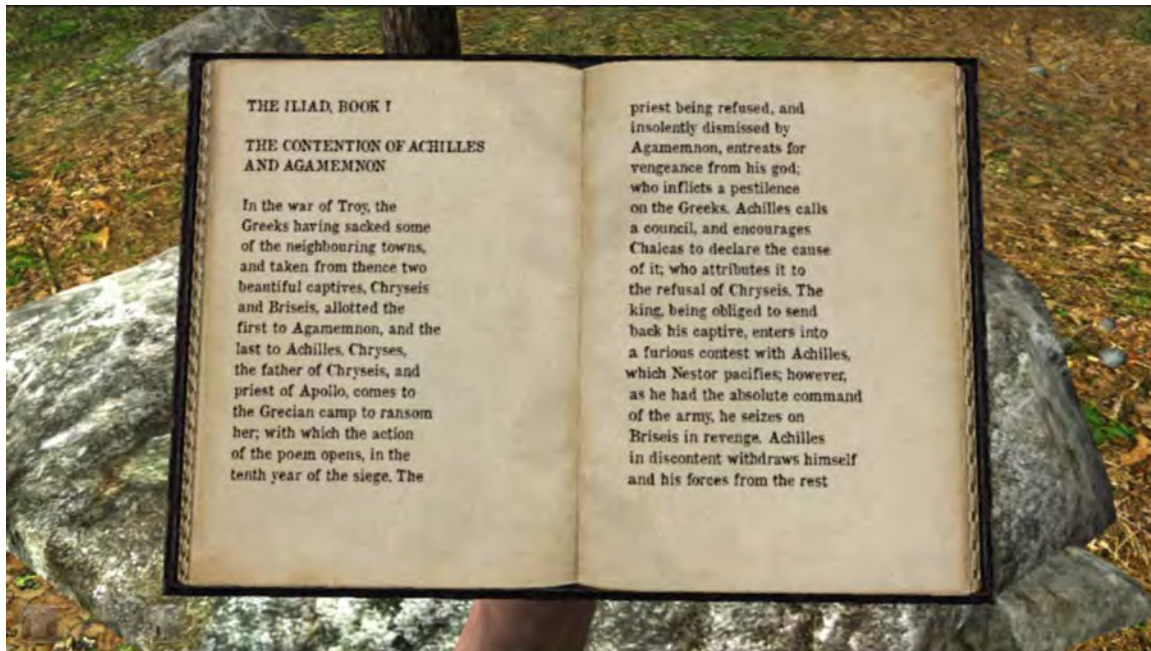














Design Document for Walden, a game

Updated June 8, 2014



Figure 1 Survey of Walden Pond by Henry David Thoreau.

Executive Summary:

Walden, a game, simulates the experiment in living made by Henry David Thoreau at Walden Pond in 1845-47, allowing players to walk in his virtual footsteps, attend to the tasks of living a self-reliant existence, discover in the beauty of a virtual landscape the ideas and writings of this unique philosopher, and cultivate through game play their own thoughts and responses to the concepts discovered there. The game takes place in a real-time 3D environment, which replicates the geography of Walden Pond and the woods in which Thoreau made his home over the seasonal changes of a year. In the game, you play Thoreau, working to find the balance between pursuing the basic necessities of life and searching out more ephemeral, spiritual experiences and connections.

The goal of the project is to bring to life the philosophy, sensibilities and historical context of Thoreau's experiment in self-reliant living as an interactive experience. This will speak to a broad audience of players who may or may not have previous knowledge of Thoreau's work, but who may find this piece an introduction to the author and his ideas. For example, the game can introduce students in high school or college who are reading Thoreau for the first time to Thoreau's experiment in self-reliant living. The piece will also speak to those already deeply interested in Thoreau, as it situates his writings in a new context, one that can be explored in a reflective and interactive setting. By taking on Thoreau's experiment ourselves, even in a virtual sense, players will find a better understanding of his writings, even if they are already deeply immersed in them.

The humanities content of the game is centered on the writings of Thoreau, specifically "Walden" itself, but not exclusively. The game will contain over 350 textual references to "Walden," Thoreau's journals, and his other writings. These will be direct quotes found in

various aspects of the game; from the voice over that forms the narrative through line, to the annotations on each of the various trees, plants, animals, objects and people that fill the woods and the town. As these are found or experienced, they will fill the player's own game journal with a procedural version of "Walden." The experience is intended to communicate the themes of the book in a deeply meaningful way, and with great rigor as to its textual roots. In this way, we feel that the game has potential audiences that range from players of experimental games, to students of history and literature, to scholars of Thoreau, Concord history and Transcendentalism.

The prototype is being created in the Unity3D game engine and will initially be available for PC and Mac users. We plan to subsequently port it to PlayStation 4 and/or Xbox One, also using the Unity3D engine and, concurrently with this port to consoles, adapt it for use with the Virtual Reality headset, Oculus Rift. The distribution channels for the game will be our own Game Innovation Lab web site, Steam, the store at Walden Pond and other relevant gift stores. Additionally, we have been contacted by a number of curators who hope to include it in upcoming game art exhibits. We see the Oculus Rift VR version being especially suited to these environments.

Game Overview:

When the game begins, it is summer of 1845, and you enter in a clearing of wildflowers behind the frame of Thoreau's unfinished cabin. As you explore, you see a glimmer of an arrowhead ahead. Upon picking up the artifact, the kind Thoreau was famous for finding in his native Concord, you hear his voice explaining, in his own words, why he has come to the woods and how he intends to live there. His experiment is now your experiment. You can choose to finish his shelter, clearing and farming the bean field behind the cabin, and get to work providing yourself with the basic necessities of life, or, you can wander the woods in search of inspiration.



Figure 2 Unfinished cabin at start of game.

You are not alone in the woods, as you soon find out. You are surrounded by wildlife, Thoreau's "brute neighbors," who, if followed, will lead you to find special areas and rewards. The woods are filled, not only with more arrowheads of Thoreau's thoughts, but also with the library of ideas that he was inspired by while there. You may even stumble on Emerson taking a walk and musing upon nature. There are the faraway sounds of society that were the focal point of

Thoreau's many critiques of his fellow townspeople – the wagons on the road, the train whistle, the incessant chopping of trees, culling away the very nature he was seeking to understand. The game activities are based in Thoreau's exacting descriptions of his time at Walden and break ground in terms of how a game can express ideas through its mechanics. Environmental author Bill McKibben calls Thoreau "a Buddha with a receipt from the hardware store" and the game models these twin impulses of the philosophical and the practical in its structure. Players must build their cabin to protect them from the elements, but they are also encouraged to wander the woods during a spring rainstorm. The meaning of a game lies between what players must do and what they can do. In *Walden, a game*, this dialectic forms a place of discovery that will allow players to find their own answer to Thoreau's primary question: "How much is enough?"

During the summer, it is easy to live off of the land, picking berries, fishing, chopping wood, etc. But if a player does not think ahead, the winter will become a trying time. As the seasons progress, so hopefully, does the player's ability to balance these basic needs with the urge to explore and play in the woods, chasing the rabbits, squirrels, or partridges, or following a blue jay along its path. The various animals will lead players to "solitude" spots, places of great natural beauty, and "reading rocks," places where the texts that Thoreau himself was inspired by, can be found and browsed. Players can row across the Pond to Emerson's Cliff and take in the view that Thoreau found so inspiring, or they can walk along the Concord road to the town itself. Here, the player can visit the Thoreau family home and pick up some mended laundry, possibly partake of a homemade pie from the windowsill. In town, there is a general store, and, if the player has money (from odd jobs that are available), they can also purchase supplies that they may be short on. There are many expensive items here, however, and once a player gets into the habit of buying what they need, rather than making or finding things in the woods, there is a danger here. In the post office, letters can be picked up from correspondents including Louis Agassiz, for whom Thoreau provided unique specimens of the wildlife at Walden Pond. Also, letters from friends, family, and other poets and authors provide an ongoing narrative of life in America at this time. It is even possible that the player may find themselves in the town jail cell, should they choose to protest the collection of taxes.



Figure 3 Attending to "necessaries of life." (Temporary interface graphics)

The seasons of the game pass in a loose narrative, as they do in the book, following an arc of discovery from summer through fall and the deep solitude of winter, culminating in the coming of spring and the reaffirmation of faith in humankind and nature alike. At the end of the game year, the player is invited to continue on in an open play mode. As Thoreau says at the end of his narrative, “Thus was my first year’s life in the woods completed; and the second was similar to it.”

The experience of playing *Walden*, a game is one that will embody and express the themes of Thoreau’s work, bringing it to life in the game medium in a such a way as never has been possible before. The game will also offer a new lens into the possibility of video games as an expressive form, advancing our understanding of their mechanics and narrative form. I ask you to support this effort, which breaks new ground, even as it revalues and explores the rich terrain of inner life at Walden Pond that Thoreau so ably preserved for us.

The following sections describe how we plan execute on these goals in specific aspects of the game design.

POV:

The game is experienced from the perspective of author Henry David Thoreau, in a first person view with voice over drawn from Thoreau’s writings – *Walden*, his journal, and several other sources. The following is a character brief intended for inspiration to the game designers and to the actor who will provide Thoreau’s voice in the game.

Henry Thoreau was 28 years old when he went down to Walden woods, only a few miles from his hometown of Concord, Mass, and built a small cabin in which to live. This was an experiment he’d been thinking about for some time; and, unlike many of the other experiments in social living going on at the time, this was a somewhat solitary venture.

Until he started keeping a journal in 1837, there wasn’t much remarkable about Henry Thoreau. He was born in 1817 in Concord, Massachusetts, where he would spend most of his life. His family made pencils, which given Thoreau’s eventual career as a writer, seems somewhat appropriate. He attended Harvard and was a good, but not brilliant student. After graduating he returned home, got a job as a teacher, which he promptly quit because he refused to beat the students. And at that point, he embarked on a career of walking, thinking and getting to know the area of Concord better than anyone has likely ever done. Supported by a series of odd jobs, such as building fences and surveying land, Thoreau was probably best known to his neighbors as “that fool who burned down the woods” because of an unfortunate camping accident. In many ways, Thoreau was the kind of sensitive slacker we’d call “emo” or “hippie” today.

In 1837, though, shortly after befriending Ralph Waldo Emerson, he began keeping a journal – apparently at Emerson’s provocation. This lifelong work included all of his observations about Concord, his environment, the details of the wildlife, the terrain, the ponds, the people and animals of the area. These observations would form the basis for his published writings, including *Walden*, a life in the Woods. Thoreau’s observations are written in a tone of dry humor, he loved word play and double *entendres* and used them often in his writing. Early on, he fancied himself a poet, though we mostly know him for his writings on nature. Far from a

stodgy icon of American literature, this is a somewhat romantic young person prone to seclusion and personal epiphany.

In *Walden*, a game, the player should get a sense of Thoreau's ongoing inner monologue – his introspection, his joyfulness in the adventure he set for himself, his sense of exploration and discovery, and the mindfulness of life that made his such an exemplary one.



Figure 4 Inspecting an arrowhead.

There will be over 350 direct textual quotes from Thoreau included the game. Here are examples of how some of those will be discovered as text when inspecting trees, animals and other objects in the world. Two hundred and fifty of these quotes will be experience as voice over during special "arrowhead moments" that the player may discover. When an arrowhead is found, it cues a special media sequence that may include animations and environmental effects to bring out the meaning of the quote. The full list of selected quotes may be altered while working with our advisory team, but the number of such opportunities will remain essential stable.

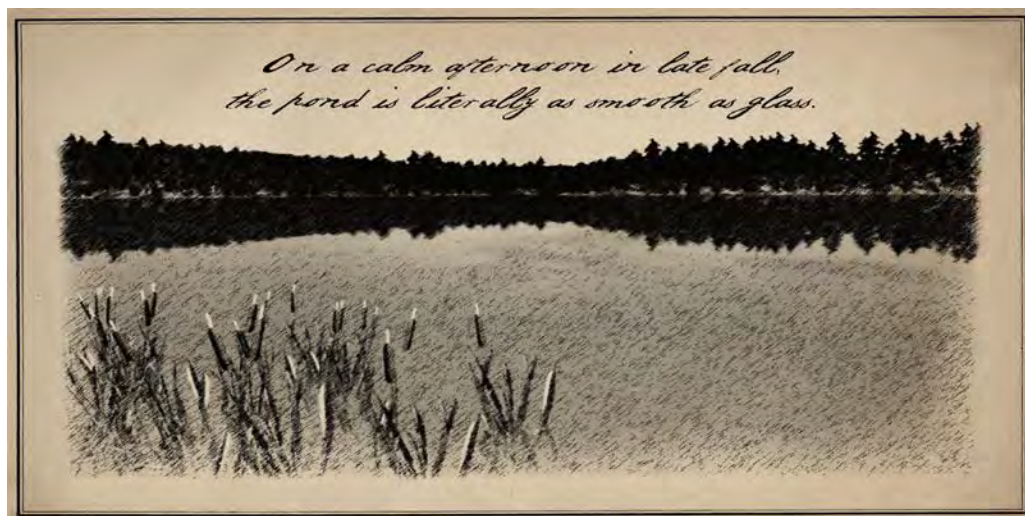


Figure 5 Late fall season card. Each season is introduced with a quote.

These basic necessities of life are countered in the game by the more ephemeral needs fulfilled by activities that Thoreau describes throughout the rest of the book: reading, listening to the sounds of the woods and of society just off his horizon, enjoying solitude as well as the company of a few visitors and his “brute neighbors,” the various animals sharing his sojourn at the pond. These activities all add to what we call “inspiration” in the game, or the sense of self as connected to the natural world, and the world of ideas. In *Walden*, a game, unlike other videogames, maintaining this sense of connection to the world is as important as maintaining ones energy levels. Players will need to rethink their strategy of play in order to fully realize Thoreau’s experiment.

The core mechanics of the game are:

- Exploration of the woods (walking, running, rowing boat, skating)
- Finding/growing/buying food
- Finding/cutting/buying fuel
- Repairing/finding/buying clothes
- Building/repairing/upgrading shelter
- Listening to sounds of woods, life in the distance
- Enjoying solitude at stone cairns in the remote sections of the woods
- Reading sections of books scattered throughout the woods
- Interacting with animals and other visitors, such as Ralph Waldo Emerson

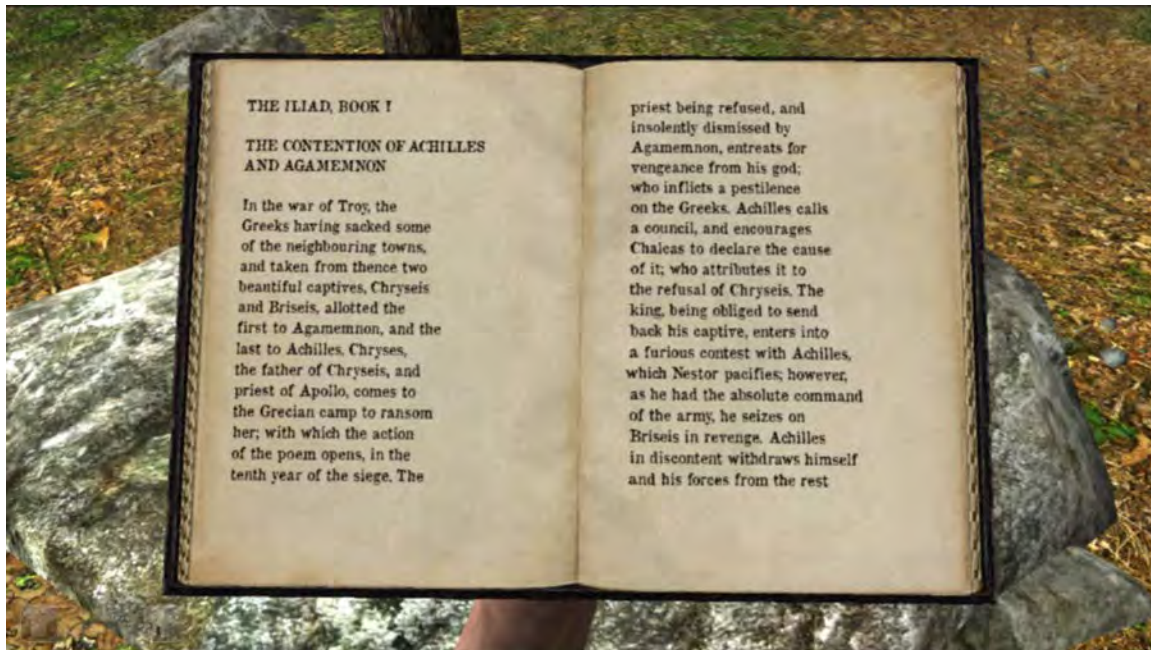


Figure 7 Example of a book found on a reading rock. Reading rocks are found throughout the woods.

Throughout the game players will receive notes and letters from various game characters including Emerson, scientist Louis Agassiz, friends and family that will send them on quests and offer them opportunities for special interactions that form the emergent narrative opportunities of the game.



Figure 8 Letter from Emerson with an example "quest" - to borrow an axe.

Game flow:

As already noted, the game begins in summer of 1845, when Thoreau first went down to the woods to live. Although he lived there for 2 years, 2 months and 2 days, the book of *Walden* only describes the first year, season by season, of his experiment and so that is the structure of the game as well. This abstracted flow describes the intent of each season of the game as it relates to player narrative. Each player will, of course, experience a different narrative, depending on how they spend their time, but this gives a general sense of the possibilities available in each level of the game.

Game level	Playing time	Experience goal of season
Summer	90 minutes	Players learn how to survive by picking berries, gathering driftwood. They may borrow an axe and chop wood, find a fishing pole and fish, find a boat and traverse the pond. Life is simple and easy.
Late summer	90 minutes	In late summer they begin to learn about inspiration, how to find it in the woods, how ephemeral it is if they do not care take it as well as their basic needs.
Fall	90 minutes	In the fall, life is still fairly simple, but the berries are growing thin. If they have planted beans, they will need to nurture them to keep the weeds and the woodchucks away. If they take on odd jobs, they may have more money, but find themselves spending more and more time away from the woods. Letters from friends speak of topical issues in America of 1845, such as the anti-slavery movement. Peers write of their work.

Late fall	90 minutes	The leaves are changing and if they have kept a good balance between their basic and needs and inspiration, the woods will be glorious. If not, they may find themselves experiencing fall in dullness and drudgery. Scientist Louis Agassiz writes in request of specimens from the pond, which players can search for if they like.
Winter	90 minutes	With winter comes the hardest challenge of the game. There are higher needs for food and fuel. The shelter and clothes need repair to keep the player warm. But, if they have been able to balance their needs, they will find winter to be full of a fragile grace, stillness and opportunities for solitude as well as joyful activity.
Late Winter	90 minutes	The pond is frozen; the town is quiet. If the player is full of energy, they can skate across the pond on clear days. They may forage out the few edible berries and plants in winter, or they may live off their store of beans. If they have not prepared well, late winter may find them taking refuge in the Thoreau house in town, where Henry's mother often leaves mended clothes and possibly a homemade pie.
Spring	90 minutes	As the pond breaks up and the first signs of life return to the woods, there is again the potential for great joy for the player to experience, especially as life becomes easier again and there is more potential to focus on raising inspiration rather than survival.
Late Spring	90 minutes	The return of full spring was a powerful metaphor for Thoreau, and as well for the game. As life blooms in fresh and bright greens, there is a largeness and lushness to the environment if players can maintain that balance they have learned. Walking in the twilight with Emerson as he muses on his epic essay Nature we hope that players will take away from this game experience a sense of the "dawn in me" of which Thoreau speaks.
Sandbox play	Unlimited	"And so the seasons went rolling on into summer, as one rambles into higher and higher grass. Thus was my first year's life in the woods completed; and the second year was similar to it." After the main year is complete, players are able to engage in unlimited sandbox play in the world of Walden, which will still be filled with experiences to be had and secrets to be explored.



Figure 9 Passage of seasons throughout the game.

Areas of play:

The game levels are each built on the same geographic map, altered for the seasonal changes. The playable area of the map is shown below. It surrounds the Pond, bounded by the Fitchburg Railroad on the west, the Concord Road on the east, ends just below Emerson's cliff on the south and just above Thoreau's bean field on the north. In addition to this area of the woods, the player may also visit a small section of Concord, which contains, the Thoreau family home, a general store, a post office and the jailhouse.

These areas contain a number of paths to guide the player toward interesting encounters, but do not restrict them to these paths. Players may wander freely throughout the map to accomplish their goals. So, if they want to farm beans "early and late," as Thoreau says, they may do so at will. Or, they may go into Concord and buy food instead, spending their time at odd jobs to earn enough money to do so. These types of choices make the experience an extremely emergent one, and let the player be as free and at home in Walden Woods as was Thoreau himself.

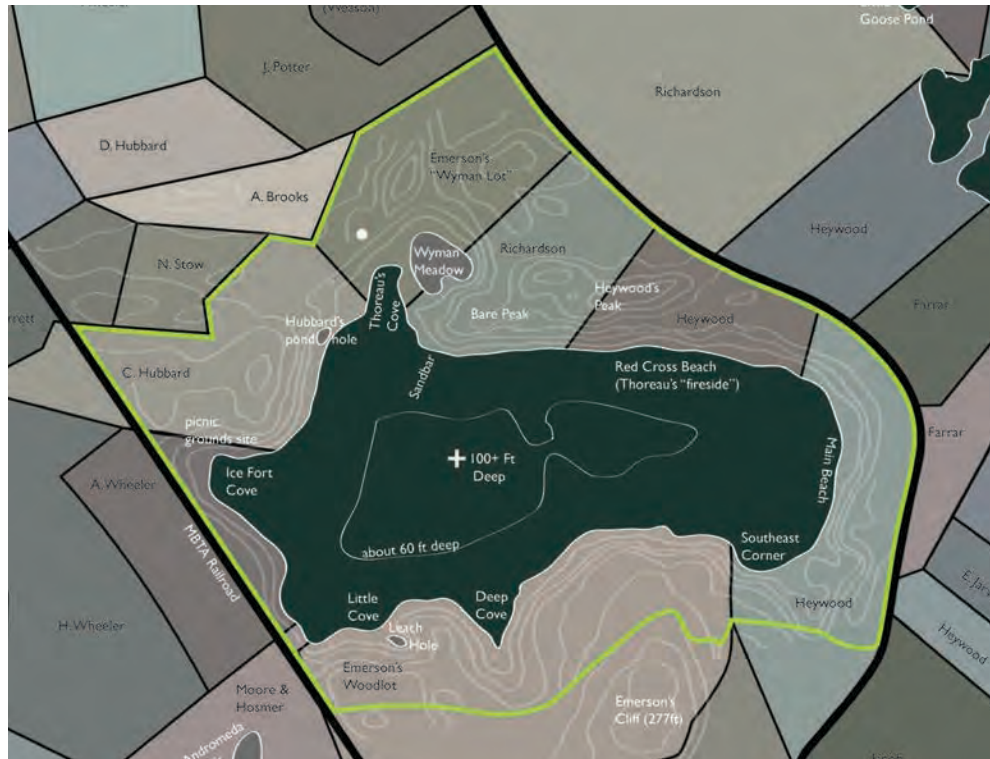


Figure 10 Visualization of the main game area.

In addition to the woods, there are several main interior areas of interest: the cabin, Emerson's home, the Thoreau home, the general store, and the post office. And, there are several important landmarks that will both guide the player and relate their activities to the unfolding narrative. These are the Fitchburg Railroad, the bean field, Emerson's Cliff, and various campsites. Each of these plays a role in both the underlying survival simulation and/or the narrative and historical content aspects of the game.

The cabin: The cabin is the player's home base. It is deeply tied to their energy levels, and if it is not finished by the colder winter, will cause their basic needs to fall rapidly. In and around the cabin are other key meters for basic needs: a food shelf that shows the state of the player's food stores; a wood pile that shows the state of their fuel stores; a clothes rack that shows the state of their clothes; and the cabin itself, which shows the state of their shelter. Each of these needs must remain sufficiently high or the player's "vital heat" or energy level will fall. The cabin also has a fireplace where the player can regain lost energy quickly. Inside the cabin is a writing desk where the player can review any letters they have received. Letters often include tasks to do, offer odd jobs, or send the player on adventures to find particular items of interest in the natural world. The cabin also has a bed where the player may "sleep." Sleeping fast forwards the game; sleeping at night forwards to dawn, while sleeping in the day fast forwards to dusk.

Emerson's home: Emerson's home has a vast library of inspiring works that the player can peruse. Reading these books, or the ones scattered throughout the woods, will cause the player's inspiration to rise. The study also holds a fireplace to replenish any lost energy. And, if the player so chooses, they may do odd jobs for Emerson, earning small amounts of money as they do so. Emerson's home, as he said himself, sits at the liminal place between the woods and society. When leaving here, the player has the choice of returning to Walden, or walking into Concord and becoming a "sojourner in civilized life" for a while.



Figure 11 Emerson's study, reference image.



Figure 12 Emerson's study, in game.

Thoreau home: The Thoreau family home in Concord offers some of the creature comforts that the cabin in the woods does not. If the player visits Thoreau's parents home, they may find that his mother has left some laundered and mended clothes for him. Or, if they are lucky, they may find a pie cooling on the windowsill. There is much criticism of Thoreau and his visits to town, as well as his dependence on family for help, but here the player is offered the choice of taking such comforts themselves, or going without. Letters from family and friends may also be found here at the Thoreau house.

General store: The general store is filled with all one might need in the world of the game: various types of food and fuel, upgrades to shelter and clothing, as well as luxuries small and large that may tempt even the most self-reliant player. Elaborate fishing rods, a fancy suit, a cast iron stove, china plates, utensils, and even penny candies. What is really necessary and what is

superfluous? Players may find themselves eager to farm more beans or take on more jobs in order to afford a new coat. But, as Thoreau points out, “beware any enterprise that requires new clothes.”



Figure 13 General store and shopkeeper.

Post office: The post office is where the player will find newspapers of the times, letters from other authors beyond Concord, correspondence from scientists such as Louis Agassiz, and job offers beyond manual labor – such as lectures and articles.

Fitchburg Railroad: The railroad was a strong metaphor for Thoreau of the encroachment of the new pace of life onto nature and civilization. In the game, as in the book, the railroad connects the pond and the town. Players can walk to town along the railroad itself, hearing the dim clicking and hum of the telegraph wires overhead. And, they can listen to the train pass on its appointed schedule from many areas of the town and the woods. These sounds of life just off the horizon were a major part of Thoreau’s sense of the woods, and attending to them will also raise the player’s inspiration.

The bean field: The bean field sits behind Thoreau’s cabin and must be cleared of brush before it can be planted and beans can be grown. Once beans are planted, they must be weeded until they are ready to harvest. Harvesting may give the player food to eat, or, if they have exceeded their storage space, may be sold to earn a small amount of money.

Emerson’s Cliff: The vista from Emerson’s cliff includes a view of the entire Pond and the spires of the churches in Concord. It is the highest point in the game world, and here players will find one of several “solitude cairns.” These cairns mark spots of particular beauty and stillness in the game world, and being in their vicinity will raise the player’s inspiration.

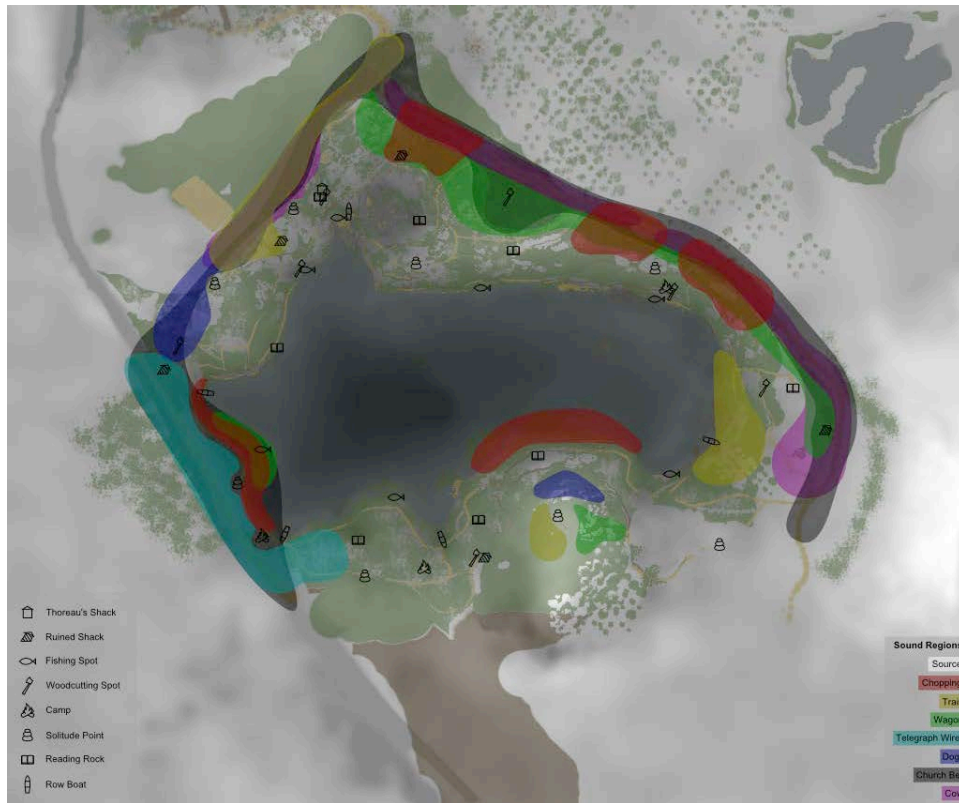


Figure 14 Sound region plan - the sounds of life beyond the horizon raise inspiration.

Campfires: The player may not wish to spend all of their time in the area of the cabin, so, in order to aid in exploration, small campsites are placed around the woods where players can revive their energy, chop wood, mend their clothes and take a short break from travel. These campfires also make good landmarks for players as they move around the Pond.

Resources:

As mentioned, the game levels are season based, and each season will have different resources available, as edible plants go in and out of season. The following diagrams show how these resources will change over the course of the game.

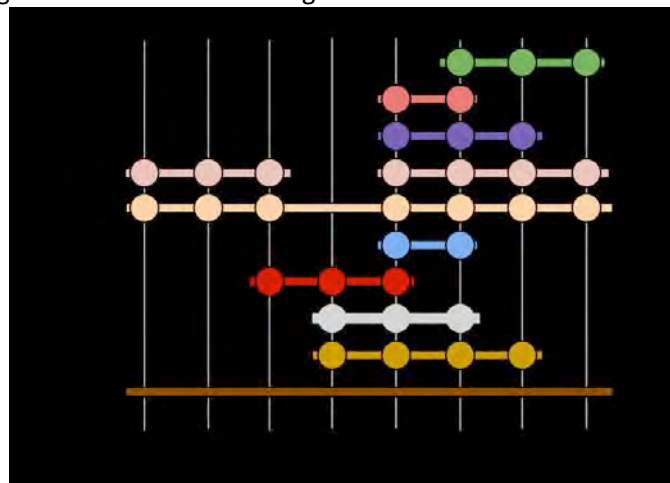


Figure 15 Edible plants by season.

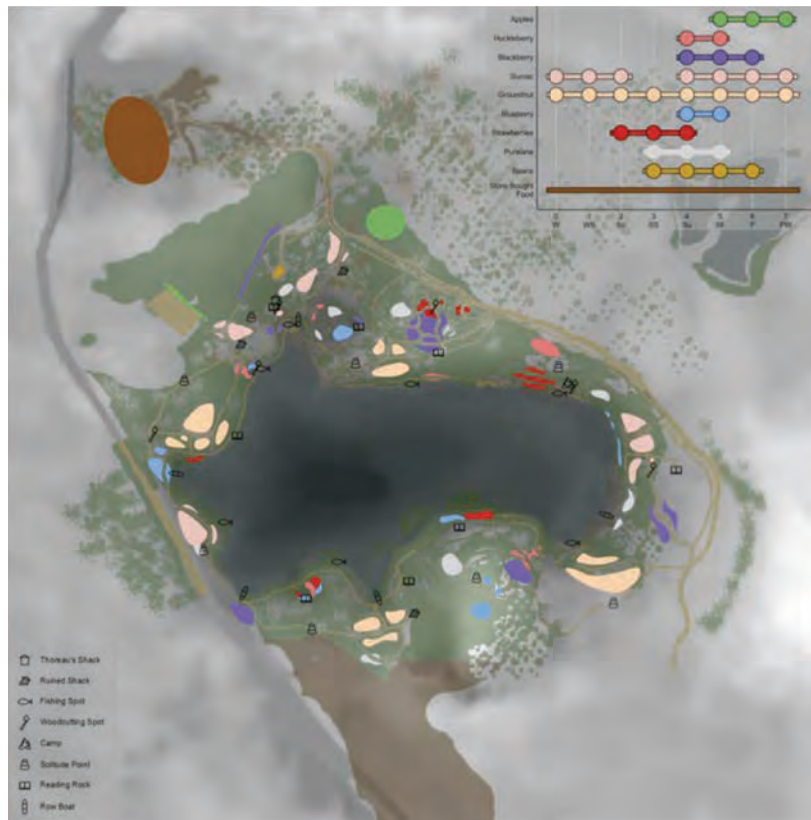


Figure 16 Resource plan for edible plants – all seasons turned on.

Plants and Animals:

There will be approximately 100 species of plants and animals, which have been taken from a detailed coding of the text of *Walden*, as seen in example images below. These serve not only as environmental set dressing, but also as anchor to textual quotes and descriptions that echo Thoreau's precise mapping of the natural world around him. As the player explores the world, inspecting these species closely, each text quote will be added to a play journal. These quotes, along with the ones associated with arrowhead moments, form the basis of the player's own procedural version of "*Walden*" – see the "journal" section of this document.

PLANTS				
<i>Latin</i>				
NAME	LATIN	PAGES	# MENTIONS	TYPE
purslane/pigweed	portulaca oleracea	54, 144	2	food (wild)
sand-cherry	cerasus pumila/prunus pu	16, 101	2	tree
(smooth) sumach	rhus glabra	39, 99, 101, 114, 199, 22	7	tree
blue flag	iris versicolor	178	1	flower
false elm/nettle tree	celtis occidentalis	180, 16	2	tree
ground nut	apios tuberosa	200, 213	2	plant; food (wild)
goldenrod	solidago stricta	101, 229, 274	3	flower
<i>Species</i>				
NAME	LATIN	PAGES	# MENTIONS	TYPE
red huckleberry	vaccinium parvifolium	16	1	shrub; food (wild)
red pine	pinus resinosa	16	1	tree
black ash	fraxinus nigra	16	1	tree
yellow violet	viola pubescens	16	1	flower
white pine	pinus strobus	36, 102, 165, 170, 203, 2	6	tree
blackberry	rubus fruticosus	39, 101, 114, 138, 139	5	shrub; food (wild)
potato	solanum tuberosum	48, 117, 139	3	food (domestic)
(Indian) corn	zea mays	48, 56, 139, 146	4	food (domestic)
turnip	brassica rapa var. rapa	48	1	food (domestic)
rye	secale cereale	56	1	food (domestic)
red maple	acer rubrum	74	1	tree
black birch	betula lenta	179	1	tree
yellow birch	betula alleghaniensis	179, 236	2	tree
pitch pine	pinus rigida	101, 114, 118, 162, 176, 1	14	tree
life-everlasting	hylothelephium telephium	101, 274	2	flower
(st.) johnswort	hypericum perforatum	101, 138, 139, 200, 274	5	flower
white bush bean	phaseolus vulgaris	9, 48, bean field chapter,	many, many	food (domestic)
(eastern/Canadian) hemlock	tsuga canadensis	133, 180	2	tree

Figure 17 Page from plant list - name, Latin name, pages & number of mentions.

Each tree and plant species will change throughout the seasons of the game year, as mentioned above in the section about resources. Many trees and plants will not be edible, but their appearance and associated text quotes will change. An observant player will notice these changes and fill their journal with many different views of these species.

Thoreau's Name	Modern Name	Latin	Quote	Alternate Quote 1
Pond Skater	Water Strider	(<i>Aquarius Antigonae</i>) 378 331	The surface of the lake is literally as smooth as glass, except where the skater insects, at equal intervals scatter over its whole extent, by their motions in the sun produce the finest imaginable sparkle on it.	You can detect a water-bug ceaselessly progressing over the smooth surface of the lake a quarter of a mile off; for they furrow the water slightly, making a conspicuous ripple bounded by two diverging lines, but the skaters glide over it without rippling it perceptibly.
Song Sparrow		(<i>Melospiza Melodia</i>)	I once had a sparrow alight upon my shoulder for a moment while I was hoeing in a village garden, and I felt that I was more distinguished by that circumstance than I should have been by any epaulet I could have worn.	The first sparrow of spring! The year beginning with younger hope than ever! The faint silvery warblings heard over the partially bare and moist fields from the song-sparrow, as if the last flakes of winter tinkled as they fell!
Mink	American Mink	(<i>Neovison Vison</i>)	As I sit at my window this summer afternoon, a mink steals out of the marsh before my door, its belly close to the ground, and seizes a frog by the shore.	
Partridge	Ruffed Grouse	(<i>Bonasa Umbellus</i> , formerly <i>Tetrao Umbellus</i>)	In June the partridge, which is so shy a bird, led her brood past my windows, from the woods in the rear to the front of my house, clucking and calling to them like a hen, and in all her behaviour proving herself the hen of the woods.	The young chicks of a partridge so exactly resemble the dried leaves and twigs of the forest floor that many a traveller has placed his foot in the midst of a brood, and heard the whirr of the old bird as she flew off, or seen her trail her wings to attract his attention, without

Figure 18 Page from animal list - modern name, Latin name, quotes.



Figure 19 Image references for animals and plants.

Animals will roam the woods according to the time of day and season. Some will lead the player to interesting game items, such as the books that can be found throughout the woods, solitude cairns, and ruined shanties that can be poached to repair the player's cabin. Interacting with the animals will raise the player's inspiration as well, with the rare animals, like a fox or mink, offering more inspiration than common ones such as squirrels or hares.



Figure 20 Animal path plans - paths lead players toward areas of interest.

Types of Players:

As our goals for this project are to bridge a great deal of player types – from new player to experienced ones, and from old to young – it is critical that the game have opportunities for them to explore Thoreau’s experiment in many different ways. For example, a young player, who has experience pushing the boundaries with many types of game systems, but little understanding of Thoreau’s message, may opt to play in a way that conforms with most commercial games. This means looking for opportunities to gain more money, buy or collect more items, and generally “level up” in the game world. While this is not the way that Thoreau would have us live, we must as he says “each find our own way,” and so too in this game. A player who looks for such opportunities will find them: in odd jobs, bean farming, letters with quest items, tools to collect, the general store, etc.

Some of the items will in fact, make life in the woods easier, giving the player more time to spend in exploration. But some will only pull the player into the cyclic trap of needing more and more money and spending more and more time up-keeping their luxury items. The following chart shows how each of the basic needs may be attended to, with varying requirements of effort, time, tools and money. In general, the most “Thoreauvian” solutions are the first and second rows, with the bottom row leading to the “trap” of relying too much on society and spending too much time earning money.

	Food	Fuel	Shelter	Clothing
Low effort, in the wild	wild fruits plants	driftwood	camping, abandoned shacks	mend (self)
Tools, more effort & time	fishing, bean farm	chopping wood	building/ repairing	mend (mother)
Money	store bought food	store bought fuel	purchased improvements	dress clothes or sturdy clothes

Figure 21 Walden “tech tree” for basic needs.

The fact that there are many ways to play the game means that players will have many different types of experiences. We will tune the game for several general types, however, and as we do so, are certain to find more as part of our player groups. Early in the game, as players are learning the system, we expect to see a breakdown of their time look something like the chart below, where they are spending the majority of their time caretaking their basic needs (food, fuel, shelter and clothing).

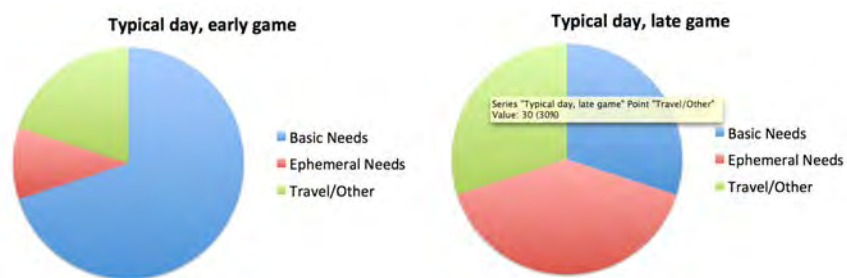


Figure 22 Player activity – out of balance, and in balance.

Later in the game, we hope to see that players are more balanced in their play – making time for both the basic and the more ephemeral “needs” in their virtual life. There will be those, of course, who set their own personal goals, and the game will support this. The charts below show how theoretical players might spend their time if they were to focus on bean farming or earning money through various jobs. (We internally call this the “Walden millionaire” player style, though of course they will be earning pennies for their work, and not millions of dollars.)

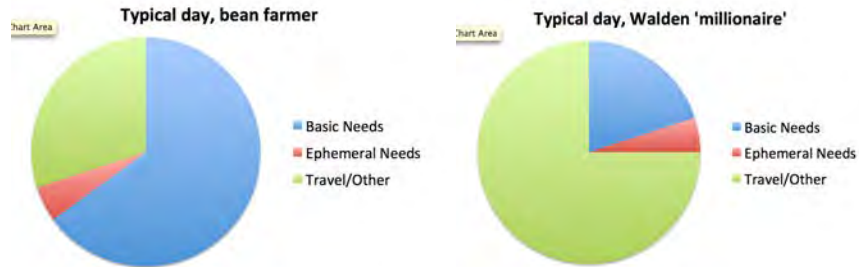


Figure 23 Player activity for alternative play styles - bean farmer and "Walden millionaire."

Player Journal:

How a player plays will ultimately be reflected in their “journal,” a collection of all the textual quotes they find as they explore the world. These quotes are taken from the original text in such a way as to make them reconfigurable in this procedurally generated review of the player’s own “version” of “Walden.” We are considering adding a feature in which this review of the player’s experience can be printed on demand, possibly through a custom book printing solution, but this would be a stretch goal for the team.

As seen in the screenshot below, the journal is organized by season. There will be hotkeys to forward to a particular season, or the player can turn each page of the journal one at a time.

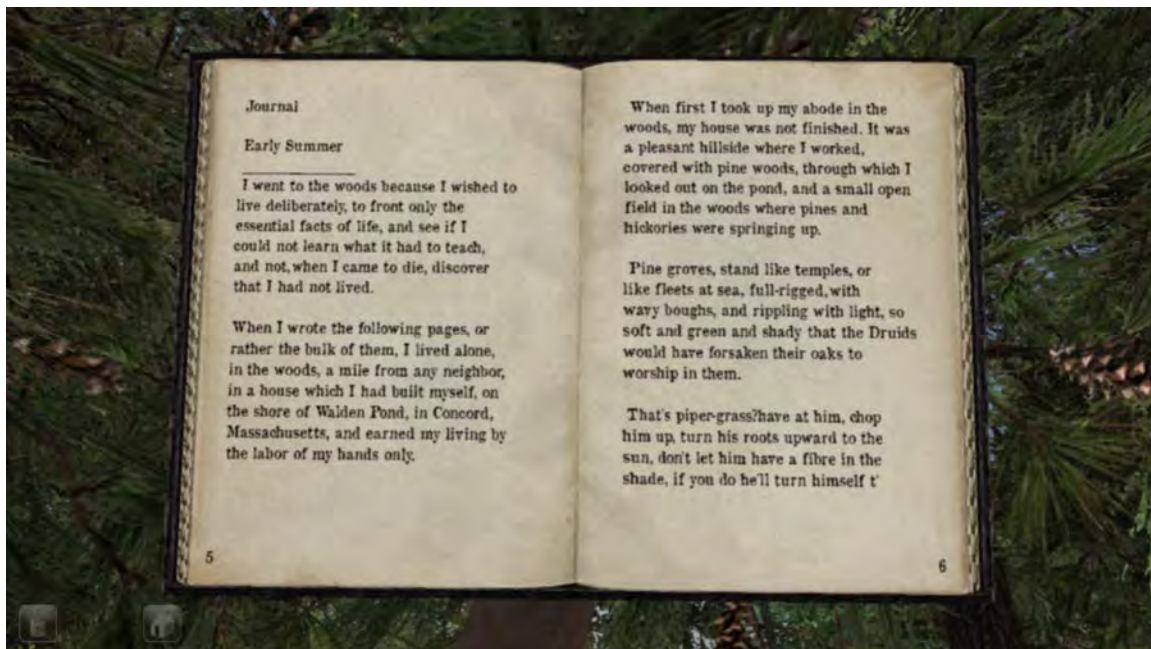


Figure 24 Player journal.

Look and Feel:

The look and feel of the game has been given a tremendous amount of thought. While we so not want the game to look photorealistic, a certain amount of naturalistic realism seems appropriate for the subject matter. We are going for a style of Romantic realism, such as can be seen in the painting below, of Emerson on a camping trip. Here we see the men as small and relatively insignificant next to the large trees, but the woods seem generous, with the soft sunlight breaking through their high branches. Rich, earthy colors, and soft edges make this an inviting natural landscape.



Figure 25 Concord camping trip circa 1840s, courtesy of Thoreau Institute.

We are also interested in the look of auto chrome photography, even though it post-dates the period of the game setting. As the image below shows, the subdued colors, soft grain and blur make it an interesting choice for our moments of low inspiration. As the section on user interface explains, the game will use a subtle feedback system for cuing the player as to their level of inspiration. Since we don't want player "gaming" the system, we are not making this available directly, but rather, will reflect the state in elements of the environment, such as the level of saturation, grain, blur and availability of arrowheads. Our references for look and feel, therefore, go beyond historical accuracy or visual design, but are an integral part of the game system design as well.



Figure 26 Early auto chrome image, subdued colors, soft grain and blur.

This visual processing as part of the feedback system is something we envisioned from the earliest days of the game and it will go hand in hand with the musical score that rises and falls with inspiration. Sound designer and composer Michael Sweet is extremely experienced in designing procedural systems and has coded a system for the music, which responds to the player's actions. If the player spends all of their time working, both the visual feel of the environment and the music will grow dull and thin. A low heartbeat of a piano maintains a presence of music, but all other melody falls away with the color and clarity of the world. As a player increases their inspiration, strains of melody in layers of instrumental voices join in, and the color and lushness of the world return. Both sound and visuals are incremented in ten steps or gradations, so that they are subtle and yet noticeable changes for the player. At the highest levels of inspiration, the world is filled with music, color and opportunities for enlightenment in the form of arrowheads.



Figure 27 Field of flowers – inspired (top) and uninspired (below).

In addition to the interactive changes to the environment, there are also the procedural changes as already discussed. The environment of *Walden* will go through a transformation in each of its eight seasons (four standard, and four transitional). We will control these seasons

through a backend XML that makes it possible for the designers to tweak the selection of sky (clear, clouds of several types, hazy and night), color of light (changes day to night and season to season), atmospheric events (rain, snow, fog, pond frozen) and other game specific variables.



Figure 28 Fall at medium-high inspiration.

Each “season” of *Walden* (summer, late summer, fall, late fall, etc.) will be made up of three in-game days of 15 minutes, making each season 45 minutes, and the full year six hours of play. As already mentioned, after the first year is finished, ending, as does Thoreau’s book in Spring, the player will be free to continue playing in sandbox mode. Given the flexibility of our backend weather system, we may create procedurally generated weather for this mode of the game, but this is a stretch goal.

User Interface:

Even though the simulation of *Walden* has a fairly complex underlying system, we do not want to focus players’ attention on this simulation. Rather, we wish to draw them into a more intuitive, rhythmic play where they learn to balance their basic needs with exploration based on cues from the environment. As such, the user interfaces for *Walden*, are very minimal. There are only a few interface systems that the user must learn to use.

In terms of buttons, here are the keys that are used in the game:

- W, A, S and D keys (for movement)
- Mouse look (for view)
- Left and right mouse buttons (for action and inspection)
- J key (opens journal)
- L key (activates lantern)

In terms of GUI, the first, and most important system is the basic need cues at the bottom left of the screen. These cues only appear when the player needs to pay more attention to one of the four basic needs – food, fuel, shelter or clothing. The screenshot below shows a player with low food stores, who is picking berries to replenish them. When their food stores are full, the icon will glow green briefly and disappear. When a player has sufficient stores of all their needs, they

will not see any icons on the screen, making for a clean interface focused on the immersive experience rather than on “grinding” play common to many role playing and simulation games.



Figure 29 Picking berries to fill food stores.

Another important set of interfaces is the “mini game” interfaces for doing tasks that require some effort, such as sawing, chopping, fishing, rowing and sewing. In these activities, the player follows a simple onscreen guide to make the appropriate gesture for each task. Once the gesture is complete, an animation plays, showing the action and the cycle begins again. Each task has a different gesture, but they are all equally simple to master. The goal of these mini games is not to challenge the player’s skill, but to represent the daily “grind” of fulfilling basic needs.



Figure 30 Sawing mini game interface.

The most complex user interface in the game is the map, shown below. The map helps the

player situate themselves in regards to their cabin and other major landmarks around the pond, including Emerson's house, the Concord road, the Fitchburg Railroad and other game elements that will appear once the player has found them. The map is the first page of the journal, so is easy to access and can be opened at any time.

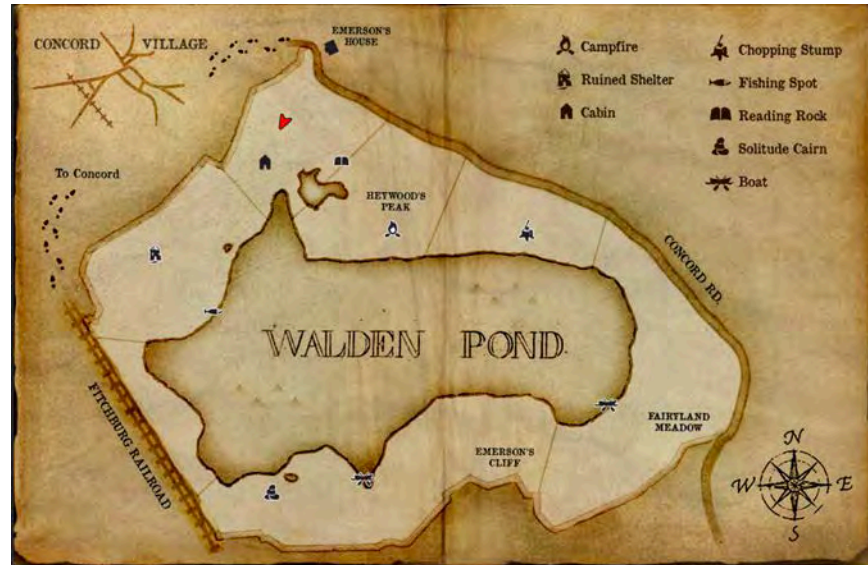


Figure 31 Game map; player location is red triangle at top left.

Letters and Quests:

As already mentioned, the player will sometimes receive letters or notes at the door of the cabin, find them at the Emerson house, their parents' home, or the Post Office. These letters may include narrative content or quests. Narrative content describes the daily life of Thoreau and his peer group at Concord, while quests send the player out to complete odd jobs, to look for specific plant or animal species, or to experience an aspect of the woods. A preliminary lists of quests, which is an area on which we hope to work with our advisors extensively, is here:

Letter/quest:

Borrow an ax
Buy a food jar
Plans for a wood shed
Learn to fish
Upgrade fishing pole
Buy fancy clothes
Buy a stove
Find the boat

Type:

Upgrade quests

Survey a farm
Survey for railroad
Survey along Concord road
Survey across pond

Surveying quests

Find a fox for Agassiz
Find a striped bream
Find a tortoise
Find an eel
Find an owl
Find a frog

Wildlife quests

Invitation to walk w Emerson
Invite to Emerson's library
Invite to parents' house
Letter about reading rocks
Letter about solitude point
Letter about fairyland meadow
Visiting a wildflower
Letter from Hawthorne
Invitation to skate
Letter from Channing about burned land

Letters from friends

Work at Emerson's
Chop trees in clearing
Clear the bean field
Sell extra beans
Work in town

Odd job quests

Lecture at Lyceum
Journal article for Dial
Lecture in Boston
Poem for Dial
Letter to the Liberator

Speaking & writing jobs

It is important that the letters and quests be both clear in terms of game play, but also true to the tone of the time and the historical authors. We will use references to real letters in Thoreau's correspondence to create these narrative components.

Technical Architecture:

The prototype will be built using Unity 3D, which will make it possible to release on PC and Mac simultaneously. The game will be available through download and may also be released via DVD for distribution in museum stores. There is no significant backend architecture to consider, other than our analytics engine, which will track user paths and crashing bugs, allowing us to release patches for any problems that arise. There is no user-generated content to account for, other than the procedurally generated player version of "Walden," which we may add as a stretch goal. Plans for how to address this feature will be made if it becomes feasible.

Future releases of the game are planned for the PlayStation 4 and the Xbox One, which will require further funding and development and are not considered under this schedule or current design document.

Distribution and Sustainability:

As already noted, the game will be distributed online, via our website at <http://www.waldengame.com> (currently a work in progress). We also plan to make the game available via Steam, DVD and through exhibitions. The Game Innovation Lab has a long history of releasing independent games and is fully ready to support the game post-launch with patches and updates as required. Since the game has been created on Unity, we should also be able along with them should new versions of the PC and Mac operating systems make that necessary. Updating for currency is normal part of a digital game's lifecycle and we assume that we will continue to do so as long as there is interest in the game.