To help the Penn Libraries identify and prepare born-digital and digitized art-related assets for archiving and preservation.

This residency focuses on three distinct areas, critical to the arts, falling within the larger theme of digital preservation.

1) The resident will develop metadata guidelines and input workflows for the preservation and stewardship of archived web collections. In concert with NDSR mentors, the resident will establish a collection development policy for web archival collections within the arts and historic preservation disciplines.

2) The resident will engage in a series of immersive studies to develop recommendations/priorities for the inclusion of arts-related born digital assets into Penn’s institutional repository and/or its Shared Shelf platform. This will involve an extensive environmental scan consisting of interviews with stakeholders who produce arts related digital content. The resident will then create detailed inventories of existing digitized and born-digital arts content along with arguments for inclusion in Penn's Scholarly Commons, its Digital Repository, Shared Shelf, or all platforms.

3) The resident will take aim at the issues and challenges surrounding arts-related publications served through new and emerging platforms such as Apps, interactive e-books, journals published through YouTube, Issu, journals published exclusively for iPads, etc., so as to consider how today’s arts research library can acquire, maintain, and preserve said publication types. Very little research has been done to date on this topic so the resident’s work here has great promise to impact the field.

Specific Objectives

• Complete an inventory of digital/web-based arts related work/collections/projects developed by key campus stakeholders - Art History, ICA, Fine Arts, Museum, Penn Libraries’ special collections staff, and bibliographers.

• Based on the inventory, the resident will establish recommendations for workflows, preservation metadata, and quality assurance for adding these unique objects to one of the many platforms available at Penn.

• Establish local guidelines, a collection development profile, and best practices for an arts related web archive collection. Much of this work will be informed by the inventory with special consideration given to the ICA’s online work and web corollaries to exhibitions, the Fine Arts Department’s online student portfolios, and freely accessible websites relating to the arts and historic preservation disciplines.

• Develop a white paper addressing the acquisition and preservation challenges confronting institutions by new arts digital publication platforms such as apps, open access platforms, multi-media platforms, etc. With support and guidance from mentors, ideally this paper would form the basis of a presentation at ARLIS or as an article for Art Documentation.
Timeframe & Deliverables

**Months 1 - 4**

- **Orientation** - The resident will be introduced to his/her project team (that is, mentors and those impacted by or likely to contribute to this projects), and to key personnel within the Special Collections, Institute for Contemporary Art, Department of the History of Art, and Penn Design’s Departments of Historic Preservation and Fine Arts.
- **Web Archiving** - Introduction to existing Penn Libraries web archiving projects and documentation. Begin training in Archive-It procedures through direct work with staff and webinars. At the same time, research and experiment with freely available resources. Meet with and interview other archival repositories engaged in providing research access to web archive collections.
- **Preservation of Born Digital Art Assets** - Conduct interviews with internal stakeholders in the arts-related departments to evaluate existing practices of developing digital content, its usage, etc. Key points to consider with stakeholders include: determining what of the digital asset to keep (which version(s), what kind of file types); intellectual property and reappropriation issues pertaining to the archived object; and what sort of capacity is needed to support these archived objects. Following this investigation, create a detailed inventory of existing born digital assets to be considered for archival processing.
- **Meet with the Penn Library IT and Preservation departments to determine the overall technological landscape supporting digital preservation. Engage in a thorough exploration of Penn’s repository and archiving platforms such as its Digital Repository and Shared Shelf, two platforms currently under development and in early implementation phases, but also Penn’s institutional repository, Scholar Commons. Explore functionalities of Shared Shelf through training webinars and consultation with Mentors and Fine Arts Image Collection staff. Review existing metadata standards.**
- **Digital Publication Platforms** - With mentors, and in collaboration with the Digital Scholarship Department in the library, establish a research plan for the duration of the residency to a) identify and examine new and emerging publication platforms for digital art content and b) document how materials are typically acquired, cataloged, served, and preserved.

**Deliverables:**

- Environmental scan of stakeholders developing digital content.
- Inventory of Archival Digital Art Desiderata held among stakeholders.
- Finalize research plan for digital publication platforms.
- By the end of the fourth month, resident will have attained fluency with Archive-It and related quality assurance.

**Months 5 - 8**

- **Web Archiving** - Test and finalize workflows and archiving standards for web archiving practices. Present recommendations and demo workflow to a) Penn Libraries Collection Development Council, b) Digital Scholarship Unit, and c) Special Collections Staff. With Mentors, establish collection development policies for locally generated arts related websites and freely available historic preservation websites aimed to enhance traditional print and electronic collections with this focus.
- **Preservation of Born Digital Art Assets** - Using the detailed inventories and information from the interviews and survey gathered in the first four months, draft preservation and planning procedures - in concert with Mentors and IT-related to priorities for inclusion and access. Finalize metadata standards for access and description. Work with stakeholders to determine preservation criteria of the assets and assess the available platform options for fit and shortcomings. Help stakeholders apply said criteria to objects at the time of their...
• Digital Publication Platforms - Deploy the publication research plan established in the first four months beginning with an environmental scan involving interviews with specific publishers, sponsoring institutions, and other libraries currently collecting born digital assets from publishers. Determine what the publishers’ expectations are for this kind of content. Consolidate findings and, with the help of mentors, develop strategies for collecting, making accessible, and preserving this unique content. Establish enough of a framework to submit a paper proposal to ARLIS/NA, CAA, or ALA, etc.

Deliverables:
• Collection Development Policy for Arts Web Archiving
• Complete Draft Preservation & Planning Procedures
• Complete environmental scan of digital art publication formats, how they’re produced, collected, and preserved.
• Submit paper/presentation proposal to ARLIS/NA for either inclusion in Art Documentation or as a conference presentation at the annual conference.

Months 9 - 12
• Web Archiving - In months nine and ten, establish a “charter archive” of websites. Determine the necessary steps for verifying digital backups and make recommendations for ongoing repository management. Working with Mentors and Library IT, explore prototypes for discovering and accessing the charter archive.
• Preservation of Born Digital Art Assets - Work with Shared Shelf to develop and identify data curation and metadata standards and guidelines for future born digital art assets. Consult with the Digital Humanities Library staff and Price Lab specialists to determine what assets from recent projects could also be included in Shared Shelf, Scholarly Commons, or, if available, the digital repository. Develop recommendations for how Shared Shelf might be improved upon for future digital preservation projects.
• Based on the numerous interviews and surveys, select an ingest test batch of born digital assets for Shared Shelf specifically (and if available, the digital archive) and archive according to workflows and recommendations established in the previous months. Document and assess the test ingest, the cataloging, and overall management of digital assets. Drawing on this experience, develop a set of recommendations and considerations for ingest into the digital repository and/or Scholarly Commons.
• Digital Publication Platforms - Compile research and findings into a draft white paper. Present findings and solicit feedback from 1) Collection Development Council; 2) Acquisitions and Cataloging Teams; and 3) Special Collections Staff. Establish final recommendations and then identify born digital objects for acquisition to test out recommendations. Finalize all research and data in the form of a conference presentation or publication.
• Final Report - Generate a final report that summarizes the research and work done during the course of residency.

Deliverables:
• Established recommendations for archiving assets in Shared Shelf, potentially the digital archive and Scholarly Commons.
• Complete final report.
For over 125 years, arts and art production have been central to the University of Pennsylvania as evidenced in its prestigious fine arts, design, and history of art programs, its Visual Studies program, the Institute for Contemporary Art, the Arthur Ross Gallery, the Penn Museum of Archaeology and Anthropology and ongoing, interdisciplinary initiatives. In early October, 2016, Penn was awarded a $15 million grant to establish the Sachs Program for Arts Innovation, a program designed to invigorate the arts and to greatly expand the range of resources in visual, performing, digital, literary and other innovative arts at the University.

Over the years, Penn Libraries has supported its art communities through print collections, electronic resources, and liaison services. However, these efforts are growing in complexity as the nature of scholarly output, the technology going into design, and the vast landscape of born digital art are changing traditional approaches to teaching, design, and research as well as archiving, collection building, and preservation. While the library has developed a number of methods and programs aimed to serve digital content in new and modern ways, it has not taken aim, specifically, at art related content such as novel e-publication formats, born digital artwork, and arts related website archiving. Penn Libraries is not alone in this regard; many arts institutions confront these areas as do professional and learned societies such as ARLIS/NA, the College Art Association, and the Society of Architectural Historians. Because of the arts communities that Penn Libraries serves, it is well positioned to build consensus on how to address these challenges locally and nationally. Paramount to fostering such consensus will be the NDS Resident’s work in three distinct areas of digital preservation.

One such project is an exploration and assessment of novel forms of electronic publications. ARLIS/NA awarded its 2013 George Wittenborn Memorial Book Award to Yale University Press’s Interaction of Color by Josef Albers, an iPad App. Such a publication is easily accessible by an individual but it is extremely complicated if not perplexing for a library to acquire, make accessible, and preserve. And yet, it is a critical publication for any arts research library to have in perpetuity. MoMA publishes a series of exhibition and collection catalogs as Apps and downloadable PDFs. These important publications cannot be networked, much less archived, without great effort and traditional e-book platforms like Ebrary or Ebsco do not cover this sort of content. Consequently, most art libraries are seeing collection gaps grow due exclusively to format challenges. The NDS Resident has an exciting opportunity, through research, assessment and networking, to lead the discussion about these challenges with which so many art library professionals and academics struggle.

Penn is in the preliminary implementation phases of its digital repository and a new DAMS, Shared Shelf. These efforts demand strategies and documentation for the management and sustainability of born digital content. Depending on how it can be scaled, Shared Shelf could provide a much needed archiving platform for a number of areas including the Institute of Contemporary Art’s Excursus online residency series, Penn Design thesis work, and individual student projects such as rising senior Konhee Chang’s digital museum that organizes visual artworks according to the sounds they are associated with; visitors navigate through different artworks using sounds. There is no shortage of interesting and challenging digital artistic output at Penn and the Resident would play a leadership role in determining how such materials should be assessed and prioritized for these platforms. At the same time, the resident would establish priorities and recommendations for archival ingest of art objects which would undoubtedly inform the management and preparation of other assets. It is hoped that the digital repository will be deployed sometime during the residency thereby allowing the resident an opportunity to fully assess the technology in relation to born digital artwork.

The third component for this resident relates to web archiving. For many libraries and archives, web archiving is already a mainstream collection development activity. While Penn Libraries has experimented with web archiving, it lacks any sort of formal approach...
which, consequently, will result in significant gaps in how it documents the broad historical record. There are a number of Philadelphia institutions already involved with web archiving including the Free Library for government websites, Temple for its special collection websites, and Drexel for its institutional websites. However most of these projects do not focus on arts or historic preservation related content which is what this resident will be considering. As a result, this component of the residency provides an exciting opportunity to define a web archiving strategy for arts and Philadelphia-specific historic preservation sites. In so doing, this work will establish important prototype parameters for selection, permissions, acquisition, storage, and access for any future efforts, thereby having a lasting impact.

In short, this residency is designed to develop solutions for managing and preserving these unique categories of content. Through outreach activities, the resident will share such outcomes from his/her investigations. And because Penn does not have a focused digital preservation plan in place for born digital arts objects, arts/historic preservation related websites, or novel forms of art publication formats, this resident will provide a critical framework for future preservation planning at Penn. To ensure success, the resident will have access to Penn museum curators, archivists, Kislak Special Collections staff, faculty, students, library systems staff, acquisitions staff, and those librarians engaged in digital preservation efforts. The experience will be deeply immersive and expose the resident to a wide range of facets within digital preservation that will only enhance their development as a new professional and soundly contribute to our own institutional discussions going forward.

**Required Resources**

- 3 Mentors (Hannah Bennett - primary, Ian Bogus, Laurie Allen)
- Dedicated Workspace/Workstation in Fisher Fine Arts Library & Van Pelt
- Access to Collaborative Workspaces, Conferencing Technology
- Access to Archive-It, Shared Shelf Admin Module, Confluence Project Management
- Site
- Penn ID
- Travel assistance for site visits, professional development, NDSR related activities.

**Required Knowledge & Skills**

The resident must have a Master's Degree in Library or Information Studies or Archival Studies from an accredited university.

The qualified resident will have the following knowledge and skills:

- Ability to communicate clearly and effectively in interdepartmental meetings, emails, and written reports.
- Ability to work well independently as well as with a team.
- Experience within an archives, library, or museum setting.
- Demonstrable organizational, analytical, and problem solving skills.
- Knowledge of basic web technologies, such as HTML, CSS, and CMS.
- Knowledge of metadata standards: Dublin Core, VRA Cores, MARC.

**Preferred Knowledge or Experience**

- Master's Degree in Art History, Museum Studies, or Design.
- Familiarity with digital repository standards and guidelines, digital preservation principles and best practices.
- Knowledge of current trends and emerging technologies in web archiving.
- Familiarity with arts publication categories and trends.
- Experience with Digital Asset Management Systems.
- Knowledge of a wide range of digital print, audio, video, and image file formats.