INSTITUTE of
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SERVICES

Museums for America

Sample Application MA-30-17-0551-17
Project Category: Collections Stewardship
Funding Level: $25,001-$500,000

Trustees of Princeton University
Princeton University Art Museum

Amount awarded by IMLS: $399,293
Amount of cost share: $399,719

Attached are the following components excerpted from the original application.

- Abstract
- Narrative
- Schedule of Completion

Please note that the instructions for preparing applications for the FY2018 Museums for America grant program differ from those that guided the preparation of FY2017 applications. This year, the maximum that may be requested from IMLS is $250,000. Be sure to use the instructions in the FY2018 Notice of Funding Opportunity for the grant program and project category to which you are applying.

Princeton University Art Museum "Discovering Drawings" Project Abstract

Lead Applicant: The Trustees of Princeton University on Behalf of the Art Museum
Chartered in 1746, Princeton University is a vibrant community of scholarship and learning, which seeks to achieve the highest levels of distinction in the discovery and transmission of knowledge and understanding. The Princeton University Art Museum is one of the world's leading university art museums with collections of more than 97,000 works of art that span the globe, from ancient to contemporary. Last year the Museum served more than 206,000 visitors onsite and another 330,000 via touring exhibitions, online resources, and publications.

Identified Need and How the "Discovering Drawings" Project Addresses It
In 2014 the Museum completed a strategic planning process which engaged more than 1,600 stakeholders, including staff, students, faculty, other community members, and peer institutions. One of the most clearly identified needs was improving access to the Museum's expansive collections, including associated scholarly documentation. IMLS support will allow the Museum to standardize and enhance cataloguing of its drawings, develop image annotation tools and an online publishing template to facilitate exploration on its website, and address conservation priorities, including matting, labeling, and storage to ensure sustained access to these materials.

Project Activities and Timeframe
During the three-year project (from November 1, 2017 to October 31, 2020), the Museum will:
- Complete retrospective cataloguing for the Museum's drawings collection (6,516 objects) in The Museum System (TMS) collections information system, including deeper research on approximately 500 selected artworks, providing detailed visual descriptions, keyword tags, bibliography, provenance, exhibition history, past research, and interpretive writing;
- Publish resulting data as open content, both on the Museum's website—which will be enhanced by innovative new image delivery tools, an interface for teaching and scholarly collaboration, and a template for publishing content online that will dynamically deliver both fielded and unstructured data—and through ARTstor, which serves as a hub to the Digital Public Library of America's free portal; and
- Address collections care needs for 1,200 drawings flagged for conservation treatment, in anticipation of greater onsite use of these artworks once they are more accessible online.

Intended Outcomes, Beneficiaries, and Measures of Success
When the project is complete, digital content and image delivery tools will be a lasting resource, reducing the need to interact physically with fragile and light sensitive artworks, and collections care improvements will allow for future use by classes, in exhibitions, and for research. Success will be measured by the number of catalogued objects available online, the utilization of tools for teaching and scholarly exchange, the number of objects with improved matting and housing, and the use of these resources by university faculty and K-12 teachers, their students, community members, and scholars around the globe. Project benefits will serve the Museum's mission—to educate, challenge, and inspire the students of Princeton University and members of a diverse local, national, and international public through exposure to the world of art.

Princeton University Art Museum Narrative: Discovering Drawings

1. Project Justification
A. What do you propose to do?

The Princeton University Art Museum's drawings collection is one of the finest and most comprehensive in the nation, spanning the 14th century to the present and comprising more than 6,000 works on paper by 1,657 artists from 34 countries. These unique works on paper, ranging from quick sketches to finished concepts including watercolors and pastels, embody multiple aspects of the creative process. Featuring rare works by Michelangelo, Goya, Degas, and Cézanne, the collection also boasts extensive groups of drawings by Guercino, Tiepolo, Romney, and Pissarro, as well as masterpieces by 20th century artists including Edward Hopper, Marc Chagall, Charles White, Lee Bontecou, and Francisco Toledo. Over the past five years—through innovative educational programming, the significant expansion of online collections, and a commitment to regularly incorporating prints and drawings into the galleries—interest in the drawings collection has grown exponentially, including a 300% increase in class visits to study works on paper. These activities have encouraged the Museum to delve deeper into the riches of its collection, showcasing many drawings for the first time in decades. Unfortunately, many of these objects are not yet catalogued with enough specificity to be readily accessible to broad and scholarly audiences. Moreover, light exposure and handling of these fragile works on paper (many currently housed in antiquated, insubstantial mounts) must be monitored carefully over time, permitting only limited periods of visibility. As such, securing the resources to protect, catalogue, and broadly share these seldom-seen treasures has emerged as a critical priority.

The Museum seeks a grant of $499,115 from the Institute of Museum and Library Services for the project "Discovering Drawings," which will greatly increase access to this collection—both online and onsite—for teaching, learning, research, publication, and pleasure. To achieve these results, the Museum has developed a three-year plan (November 1, 2017–October 31, 2020) to:

- Complete retrospective cataloguing for the Museum's full drawings collection in The Museum System (TMS) collections information system, including deeper research on approximately 500 selected artworks, providing detailed visual descriptions, keyword tagging, bibliography, past research, and interpretive writing.
- Publish resulting data as open content via an application programming interface (API) on the Museum's website—enhanced by innovative new image delivery tools, an interface for teaching and scholarly collaboration, and a template for publishing content online that will dynamically deliver both fielded and unstructured data—and via ARTstor, which serves as a hub to the Digital Public Library of America's free portal.
- Address collections care needs for 1,200 drawings flagged for conservation treatment, in anticipation of greater onsite use of these artworks once they are more accessible online.

These activities will ensure sustainability and enable significantly expanded use of the drawings collection (detailed in Attachment #14, Collection Overview) by university faculty and K-12 teachers, their students, community members, scholars around the globe, and other audiences.

B. What need, problem, or challenge will your project address and how was it identified?
The Princeton University Art Museum completed a strategic plan in 2014 to guide operations through 2018. This collaborative process engaged more than 1,600 stakeholders, including staff, students, faculty, community members, and peer institutions. One of the most clearly identified needs was that of **improving access to the Museum's expansive collections**. Building on a collections-wide inventory (2010-15), which resulted in digital images for all objects, the Museum launched a five-year Collections Discovery Initiative in 2015. The initiative includes retrospective cataloging, the conversion of existing collections information from analogue to digital format, new research, the creation of a data services layer to support delivery to multiple end points, enhanced image delivery and presentation protocols, and the development of an innovative search strategy and interface. The Museum has secured support for the initiative's critical personnel and infrastructure, but this funding is <u>not</u> sufficient to ensure that all collections data—accrued since the origins of art collecting at Princeton in 1755 by curators, faculty, students, and outside scholars—is properly cataloged and indexed for online access, nor does it directly address collections care challenges. The "Discovering Drawings" project will standardize and enhance cataloguing of the Museum's drawings (as seen in Attachment #16, Sample Object Records, with both a current record and sample of an improved record), create new resources for exploring these artworks on its website, and address previously identified conservation priorities (as noted in Attachment #15, Collections Care Needs), including improving matting, labeling, and storage to ensure safe and sustained access to these materials.

C. Who or what will benefit from your project?
Established in the 1930s and 1940s and now numbering over 6,000 objects, the Princeton University Art Museum's drawings collection provides both art historical depth and cross-disciplinary breadth. This important Museum collection consists of some 4,000 drawings by American, British, Italian, and French artists, as well as significant groups from Spain and Latin America, the Netherlands, Germany, and Central Europe—casting an international lens on one of the most multi-faceted forms of artistic expression. Non-Western holdings include 20th-century African drawings, Islamic calligraphy, Rajput and Mughal manuscripts, and a rare 18th-century Ethiopian prayer book. The Museum presents changing selections of drawings in the galleries, with 60-70 works on paper rotating every four to six months to preserve the artworks from excessive light exposure. It also organizes special exhibitions, mounts thematic installations for students and organized public tours in the Works on Paper Study Room, publishes catalogues, organizes symposia, and offers other programs to deepen knowledge of these objects. These efforts have prompted the Museum's curators to delve deeper into the riches of the collection, exhibiting many drawings for the first time in decades and unearthing new collections care needs and opportunities for expansion of web-based search and discovery.

"Discovering Drawings" will benefit the Museum's existing and potential audiences—both onsite and online—including students, faculty, scholars, staff, community members, and

museum collaborators. The project will serve current visitors (including in FY16 206,000 onsite visitors and another 332,000 who enjoyed the Museum's traveling exhibitions, publications, and online resources), who will be able to view significantly more drawings after they are remounted, as well as new constituents benefiting from the new tools and digitally available enhanced data.

When the cataloguing work of the "Discovering Drawings" project is complete, broad public audiences will have digital access to both core identifying information (i.e. when, where, and by whom objects were made) and rich associated content (i.e. what these works mean and why they are important) on the works in the drawings collection. This content includes scholarship currently available in analog form alone, such as entries in a two-volume catalogue on the Italian drawings (916 entries) by Felton Gibbon in 1977 and extensive scholarly research carried out and published on over 300 drawings in two exhibition catalogues on American drawings (2004) and Italian drawings (2014) and a comprehensive Spanish drawings catalogue (2013).

The project's deeper object-based research will investigate an important group of drawings that remain unpublished and/or understudied. By exploring and resolving issues of function, dating, technique, attribution, and iconography, this effort will further international scholarly exchange and benefit the University community and general public alike. Reflecting strengths across a wide historical and geographical range, the 500 works selected for deeper research include:

- 150 16th–18th-century Italian drawings, including over 50 key studies, caricatures, and landscapes from the renowned groups by Guercino, Rosa, and Tiepolo;
- 150 16th–19th-century British drawings, including a rare unpublished sketchbook by the young JMW Turner, as well as extensive groups by George Romney and John Flaxman;
- 50 16th–19th-century Dutch, Flemish, German, and Central European drawings which have frequently been taught in seminars but merit more research;
- 50 16th–19th-century French drawings, including works by Charles Daubigny, Puvis de Chavannes, and Aristide Maillol which have thus far received little scholarly attention;
- 50 18th–20th century American drawings and watercolors by various artists, including significant groups by Thomas Cole and Charles Herbert Moore, and women artists including Dorothy Dehner and Jane Peterson; and
- 50 16th–20th century drawings, largely unpublished, by an international range of artists from a recent bequest of over 200 works on paper.

The project will also prepare the collection for onsite access, with 1,200 sub-standard mounts replaced (according to current archival practice), properly labeled, safely stored in numbered solander boxes, with new locations updated in the Museum's TMS database.

D. How will your project advance your strategic plan and address IMLS goals?
As detailed in Attachment #4, Strategic Plan Summary, the "Discovering Drawings" project advances the Museum's strategic plan by supporting the following key goals:

- Make collections and exhibitions accessible to students, scholars, and visitors of all kinds
  Improving the richness of information available, the physical condition of the collection, and ways to discover it to increase access for diverse audiences both online and onsite.
- Address constraints of the existing facility
  Developing and implementing strategies for meeting increased demands for physical access to the collection, including better online discovery and onsite storage of drawings.
- Provide leadership in the arts and humanities on campus and beyond
  Employing state-of-the-art technologies to support online teaching for university and K-12 classes and allowing for online scholarly exchange.
- Ready for growth and leverage relationships
  Increasing awareness of the Museum's drawings collection and its use by scholars and visitors will also increase potential for new relationships and financial support.

This project would increase the value of the Museum's collections to staff, faculty, teachers, and students onsite and online, as it publishes existing and new information about the outstanding drawings collection; improves online search and access; provides tools to support teaching, research, and discovery; adopts open frameworks and open source solutions; and addresses critical collections care needs. As such, the project echoes IMLS performance goals of *broadening access, expanding use, and improving management and care of the Nation's content and collections*—key goals of the IMLS Collections Stewardship initiative.

2. Project Work Plan
A. Who will plan, implement, and manage your project? What activities will you complete?
The project "Discovering Drawings" will be a key priority during the grant period, and the Museum will allocate staff time accordingly to ensure its successful completion. Museum Director James Steward will provide overall direction for the project. Associate Director for Information and Technology Janet Strohl-Morgan—who joined the Museum staff in 2002 and has over 25 years of experience—will serve as project manager. She will be joined on the project implementation team by Heather and Paul G. Haaga Jr., Class of 1970, Curator of Prints and Drawings Laura Giles, Associate Curator of Prints and Drawings Calvin Brown, Manager of Collections Information Cathryn Goodwin, and other regular staff members (detailed in Attachment #9 Key Project Personnel and #10 Resumes). Additionally, the Museum will hire:

- A Cataloguer to complete retrospective cataloguing for the full drawings collection (6,516 objects), which will be published online as open content (*1,500 works are now complete, the Cataloguer will complete 4,000, and the Research Assistant will add 500*);
- A Research Assistant to study selected drawings and develop interpretive texts with the Curator of Prints and Drawings and complete cataloguing for these 500 works of art;
- A Designer to work with the Museum's Application Developer (supported by IMLS) to design more intuitive access and tools for online collaboration and publishing; and
- A Collections Technician to address prioritized drawings collections care needs.

The Museum's project will continue to be shaped by input from other staff and scholarly and community audiences, including those who helped guide the Museum's strategic plan. The Museum will convene a targeted group of potential users including faculty, student, and community audiences, to fine tune functionality of the proposed image annotation tools. Activities build on best practices in collections research and care and the project team's experience with the creation and preservation of digital resources, implementation of the International Image Interoperability Framework (IIIF), and the formative work of the American Art Collaborative (AAC) towards the publication of linked open data. As detailed below, progress towards the goals of the three-year "Discovering Drawings" project will be monitored via regular meetings and metrics.

B. What are the risks to the project and are they accounted for in the work plan?
A key risk to making the Museum's drawings easier to research and discover online is a resulting increase in requests to view and/or borrow drawings, as audiences are better able to find drawings of interest. While the current state of matting and housing for hundreds of drawings in the collection would be a barrier to onsite access now, the project work plan addresses this issue by including support for a technician and materials to allow for matting and rehousing as works are reviewed during the cataloguing process. Another risk is the discovery of additional conservation and research needs over the course of the project. Conservation needs will be noted in TMS during the rehousing and will be summarized for future conservation treatment.

C. When and in what sequence will activities occur?
As illustrated in Attachment #6, Schedule of Completion, Princeton's "Discovering Drawings" project will run from November 1, 2017 through October 31, 2020 and include:

Prior to grant start date
- Approve final list of objects for deeper research and cataloguing guidelines with curators
- Form working group to outline technology development priorities and timeline

Fall 2017 – February 2018
- Hire and train Cataloguer in Museum systems; begin cataloguing (1/1/18–6/30/20)
- Hire and train Collections Technician; begin collections care work (1/1/18–6/30/20)

Winter-Spring 2018 – Summer-Fall 2020
- Hold weekly cataloging and technology meetings and monthly project team meetings
- Hire and train Research Assistant in Museum systems; begin research (7/1/18–6/30/20)
- Curators review ongoing cataloguing, research, and collections care work
- Convene focus group for new technology tools
- Monthly management team reports ensure alignment with institutional objectives
- Design and implement online publishing template incorporating IIIF compliant image viewer (Mirador) customized for teaching and scholarly exchange.
- Contribute images and metadata to ARTstor
- Assess project and share results

D. What financial, personnel, and other resources are needed to carry out the activities?
As detailed in Attachment #7 Budget Form and #8 Justification, the financial resources needed to carry out the project total $998,764. This figure includes $499,115 requested from IMLS to support salaries and benefits for a web application developer, cataloguer (100% FTE for 2.5 years), collections technician (50% FTE for 2.5 years), and researcher (50% FTE for 2 years), web design, and indirect costs. The Princeton University Art Museum will provide $499,649 in cost share, which includes salary and benefit support for regular staff members working on the project (detailed in Attachments #9 and #10, Key Staff and Resumes) and indirect costs.

F. How will you track progress toward achieving your intended results?
Progress will be monitored through monthly meetings chaired by the project manager. TMS reports will summarize the number of objects rehoused and rematted, cataloguing progress, and status of technology development. Adjustments to the work plan and budget will be made accordingly. The Curators and Manager of Collections Information will review the quantity and quality of information and adjust pacing as needed. The project manager will share results with the Director and senior management at biweekly management team meetings. Success in achieving the intended results will be measured by the number of catalogued objects available online, the utilization of tools for teaching and scholarly exchange, the number of objects with improved matting and housing, and the use of the collection and educational resources in teaching.

G. How and with whom will you share your project's results?
New and existing digital content from the "Discovering Drawings" project will be delivered to the Museum's website and contributed to the ARTstor Digital Library and thus will be accessible to broad audiences of scholars, researchers, and general users. The Museum will share news of new resources via relevant departmental listservs and electronic mailing lists of relevant professional associations. Staff will conduct training sessions with faculty and students in the use of enhanced teaching and annotation tools. Project results will also be shared with other museum education, collections, and technology colleagues nationally and internationally, through regular communications and presentations at other institutions and conferences. The Museum's marketing and public relations team will publicize the project through various channels, including stories on its homepage (which last year received over 200,000 visits), a feature in the Museum's biweekly e-newsletter (sent to 7,800 opt-in recipients), and coverage in the Museum's quarterly magazine (circulation 8,000). The Museum's social media team will ensure coverage on Facebook, Twitter, and Instagram, which are regularly seen by 20,000+ followers.

3. Project Results
A. How will intended results address the needs identified in the Project Justification?
IMLS support will allow the Princeton University Art Museum to make focused progress on increasing the breadth and depth of information about its drawings collection available online as

well as to address collections care priorities to ensure these works can also be explored by onsite visitors. The immediate targets, which can easily be assessed at the end of the project, are to:

1) Ensure that core descriptive information is available for all drawings in the collection (6,516 works);
2) Conduct and catalogue research on 500 selected works of art;
3) Improve collections care for 1,200 works of art; and
4) Create new online tools and publishing templates to provide university, K-12, and general audiences with improved access to the collection and platforms for teaching and dialogue.

B. How will the project improve the care, condition, and/or management of the collections?
Building on the Museum's collections information management system and digital asset management system, which serve as repositories for all collections information and digital images, this project will further enhance data and build sustainable tools for searching, discovering, and displaying, and interacting with this collection. Additionally, the collections care aspects of the project will ensure that the delicate drawings are properly matted and housed, providing for long-term use and increasing awareness and appreciation of this collection.

C. What tangible products will result from your project?
Tangible products resulting from the Princeton University Art Museum's project include:

- Information about the 6,516 drawings in the Museum's collections, including 500 objects selected for deeper research, will be available via its website for casual exploration or research and for incorporation into various educational programming initiatives;
- Images and metadata for catalogued objects will be contributed to the ArtStor Digital Library and openly published as json data (for better browser/server communication) through the Museum's application programming interface (API);
- Approximately 1,200 drawings will be rematted and/or rehoused;
- Collection presentation and annotation tools will be customized on the Mirador image viewer (implementing the IIIF image and presentation specifications) to support teaching, scholarly exchange and dialogue, and an enhanced experience of Museum collections.

D. How will you sustain the benefit(s) of your project?
When the project "Discovering Drawings" is complete and new information is available through the Museum's website, the digital content will be a lasting resource, reducing the need to physically interact with many fragile and light sensitive artworks. Collections care improvements will allow for future use by classes, in exhibitions, and for research. The project will establish work flows and content delivery platforms through which curators, educators, and others can add information for new acquisitions and more in-depth research as it becomes available through installations, exhibitions, publications, and programs. Project benefits will serve the Museum's mission—to educate, challenge, and inspire the students of Princeton University and members of a diverse local, national, and international public through exposure to the world of art.

Year One Activities: 11/1/2017 - 10/31/2018	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Final list of objects for deeper research approved	■											
Working group completes technology outline/timeline	■											
Project Director convenes monthly team meetings	■	■	■	■	■	■	■	■	■	■	■	■
Hire and train IMLS-funded Cataloguer	■	■	■									
Cataloguing work and weekly project meetings			■	■	■	■	■	■	■	■	■	■
Hire and train IMLS-funded Collections Technician	■	■	■									
Train Technician in Museum systems			■									
IIIF image manifest service implementation				■	■	■	■					
Hire and train IMLS-funded Research Assistant							■	■	■			
Base Mirador installation									■	■		
Mirador customization discovery phase including user needs assessment											■	■

Year Two Activities: 11/1/2018 - 10/31/2019	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Team meetings and project asssesments continue	■	■	■	■	■	■	■	■	■	■	■	■
Cataloguing work continues	■	■	■	■	■	■	■	■	■	■	■	■
Prepare RFP and hire designer	■	■	■									
Mirador customization implementation	■	■	■	■	■	■	■	■				
Design content publishing template					■	■						
Mirador customization user testing							■	■				
Conservation care continues	■	■	■	■	■	■	■	■	■	■	■	■
Research continues	■	■	■	■	■	■	■	■	■	■	■	■
Data aggregation and modeling											■	
Curators review ongoing cataloguing, research, care	■	■	■	■	■	■	■	■	■	■	■	■

Year Three Activities: 11/1/2019 - 10/31/2020	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Team meetings and project asssesments continue	■	■	■	■	■	■	■	■	■	■	■	■
Cataloguing work continues	■	■	■	■	■	■	■	■				
Data aggregation and modeling (continued)	■	■										
Conservation care continues	■	■	■	■	■	■	■	■				
Research continues	■	■	■	■	■	■	■	■				
API development to support data delivery			■	■	■	■						
Test API and embedded Mirador functionality							■	■				
Curators review ongoing cataloguing, research, care	■	■	■	■	■	■	■	■	■	■	■	■
Market new resources									■	■	■	■
Contribute images and metadata to ARTstor									■	■	■	■
Assess project and share results										■	■	■