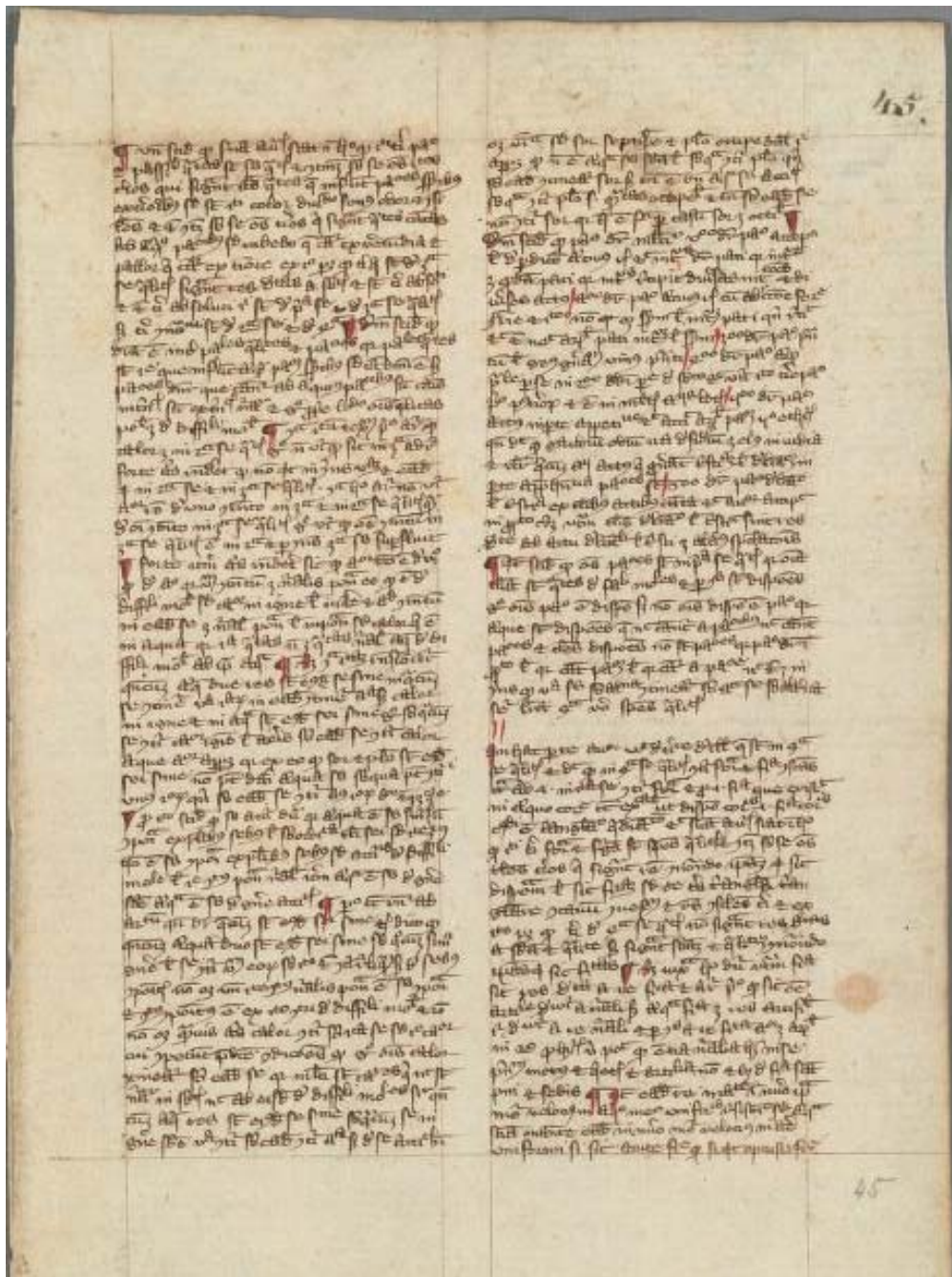


Medieval Manuscript Digital Project at Houghton Library (LDI Round 10)



Submitted by:

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Project Background and Goals

This project was to augment and supplement the work of the Digital Scriptorium project (<http://www.scriptorium.columbia.edu>), supported by NEH funding, which has begun to make representative digital images from selected Houghton Library medieval and Renaissance manuscripts available to students and scholars on the worldwide web.

In consultation with Harvard University faculty, 30 medieval and Renaissance manuscripts have been designated for complete digital capture. Images were to be delivered through the Harvard University Library (HUL) Page Delivery System (PDS) and discovered via links in HOLLIS records in the HUL OPAC and from the project website.

Harvard University Library
Page Delivery Service

Houghton Library, B 4406.657. Original leaves from famous books : eight centuries, 1240 A.D.-1923 A.D. no.3. Livy.

Search View Text Printable Version Related Links Help Copyright

Page: None Go to Sequence: 1 Go to Image Size:

Expand All Collapse All

Houghton Library, B 4406.657. C
f 1. [pp. unnumbered page(seq. 1)]
f. 1v. [pp. unnumbered page(seq. 2)]

Finere eos nulla vis possit. p. arma p. uros lute strigem dedere. Secutus te
del impetum equu' tumbat hostibus multu' signa. xx. milia hostiu' ca
eo die tridime. Auctores heo bis cum hoste signa collata. dictatore abte
re bis tem egregie gestam. Apud antiquissimos scriptores vna hoc pugna
tueniunt. In quibusda' analibus tota res p'termilla e'. Magister equum
ut ex tanta cede multis potius spoliis cogesta t'ngente acerui hosti
lia arma subito igne co'tremavit. seu votum id deoy fuit cupiam
seu credere. libet. Fabio auctore eo factu' ne sue glorie fructu' dictato
caperet nomenq. sibi scriberet. aut spolia in erup'bo ferret. Lutene
quoq. dere prospere gesta ad tenatum no ad dictatore misse argum
tum fuit minime. cum eo co'tantes laudat. Ita certe dictator id tem
ut leat. aliu' victoria parca p' se ferret. vni insidias. Nullo itaq. m'p'ete
senati se ex cura prorupit. enimvero no' lantiu' magis legione q. maesta
tem dictatonam. et disciplina' militare ab magro equu' victa' scelerfam dic
tatis. si illi imperiu' spretum impune fuisset. itaq. plenu' minay. itaq.
profectus in castra cum maxis utinibus illet. non tame' puerne fama
aduentus sui potuit. puenerit u. ab urbe q. n'currit. dictatore audiu
pote venire. alterius paens vrbis. it. namly factu' laudatem. // Fabius

Manuscript page delivered in PDS: Houghton Library, B 4406.657. Original leaves from famous books : eight centuries, 1240 A.D.-1923 A.D. no.3. Livy.

The initial project goal of digitizing thirty medieval and Renaissance manuscripts was reached and after a late start the project stayed on the revised schedule. The digitized manuscripts total 6959 images.

Implementation

Planning and Preparation

Manuscripts for this project were selected based on faculty requests. The list of manuscripts to be included in the project was finalized based on the conservation review. Those requiring no conservation treatment were to be digitized first. The manuscripts were to be digitized by the Digital Imaging and Photography Group of the Preservation and Imaging Department of the Harvard College Library (HCL DIG).

Workflow

This project built on workflow established with NEH funding, resulting in the following:

- Finalize selection of manuscripts following conservation review
- Determine order in which manuscripts will be processed and digitized, with those requiring no conservation treatment digitized first.
- Determine Batches to go to Imaging Services.
- Begin production according to the following workflow:
 - Pre-digitization conservation treatment, if necessary
 - Enter records for each manuscript and associated images into Digital Scriptorium database
 - Deliver manuscripts to Imaging Services
 - Materials digitized and deposited into Harvard Digital Repository Service (DRS)
 - Upon receipt of DRS deposit report, QC digital objects in PDS

Descriptive and Structural Metadata

Catalog records for the manuscripts already existed in HOLLIS. Data from the HOLLIS record was keyed into a local copy of the Digital Scriptorium Access database, along with additional descriptive and structural information down to the page level. A spreadsheet was generated from the database to accompany each manuscript to the digitization vendor. The spreadsheet provided file naming information, as well as the HOLLIS number and label and structural information necessary for the creation of the METS file needed to deliver the object through the Page Delivery Service.

[Full Catalog](#) [Find Articles](#) [Journal Titles](#) [Digital Resources](#) [Reserv](#)

Full View of Record : **FULL CATALOG**

[Print/Save/Send](#) [Add to List](#) [View List](#) [Last Browse](#) [Back to Results List](#)

Choose format: [Full view](#) | [Short view](#) | [MARC](#)

Record 1 out of 692

Title : [Original leaves from famous books : eight centuries, 1240 A.D.-1923 A.D. / annotated by Otto F. Ege.](#)
Published : [New York : Philip C. Duschnes, 1949]

INTERNET LINK : <http://nrs.harvard.edu/urn-3:FHCL.HOUGH:1077864> [Medieval manuscript leaf no. 1, Vulgate]
<http://nrs.harvard.edu/urn-3:FHCL.HOUGH:1077865> [Medieval manuscript leaf no. 2, Aristotle]
<http://nrs.harvard.edu/urn-3:FHCL.HOUGH:1077870> [Medieval manuscript leaf no. 3, Livy]

Locations/Orders : [Availability](#)

Location : [Houghton B 4406.657* PF \[Copy no. 14 of 110 copies.\] \[Original brown buckram portfolio.\]](#) ⓘ
Location : [Networked Resource](#) ⓘ

HOLLIS Catalog record of a manuscript with links to PDS page images

Digitization

Digitization of the manuscripts was done by the HCL DIG, using the specifications and methodologies developed for the Digital Scriptorium Project. The imaging specification was designed to produce high quality images that match the original documents as closely as reasonably possible while maintaining careful handling of the manuscript as the foremost concern. Archival Master TIFF images were created that were capable of producing high-quality reprints at the same size as the original pages. The specification for the JPEG 2000 “delivery” images was designed to produce images optimized for variable size viewing on the Web.

Storage

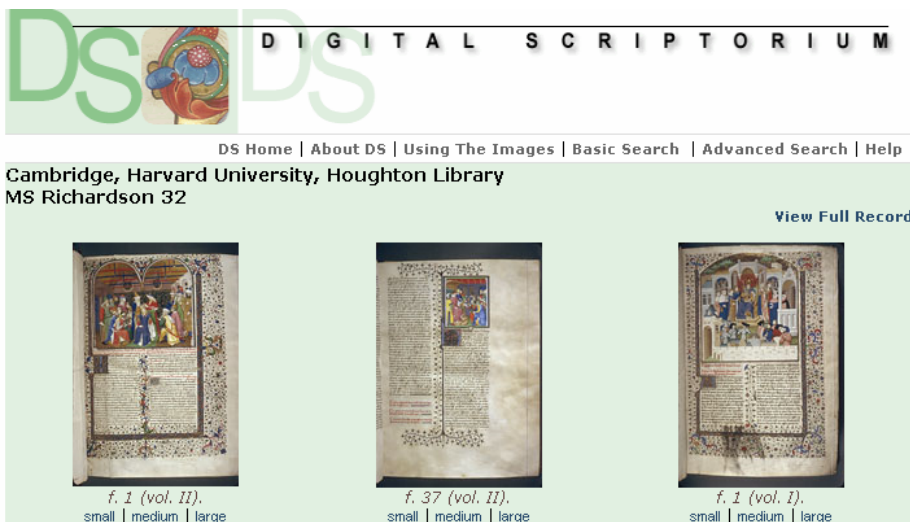
Images and metadata files were deposited in the DRS, with the HCL DIG serving as the depositing agent.

Online Discovery and Delivery

This project built on workflow established with NEH funding. The content was selected by faculty as likely to be of use in their teaching. Each of the four funding sources for the overall project thus far has concentrated on a different type of material and as a consequence there will be a wide range of material available. I expect that the content will continue to grow as additional sources of funding are identified. The content is available to users through three sources.

Firstly, catalog records in HOLLIS contain a link to the digital object in the Page Delivery System. HOLLIS records may also contain links to a reconstructed or rearranged version. HOLLIS records may also contain a link to a hyperlinked bibliography for the manuscript and/or an expanded contents finding aid in OASIS. In the future audio files, digitally enhanced images (of erased inscriptions, for example), images with embedded information for teaching and PDFs of scholarly descriptions may also be linked to the HOLLIS record.

Each of the components for an individual manuscript allows users to move to the others



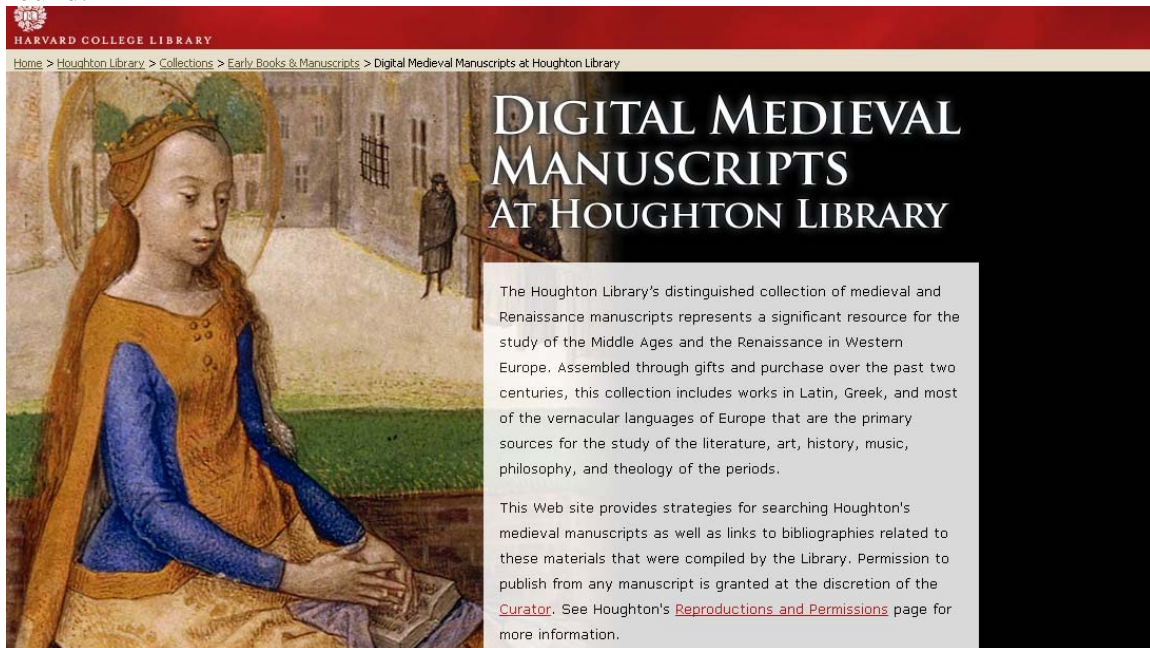
The screenshot displays the Digital Scriptorium (DS) interface. At the top, the logo features the letters 'DS' in a stylized green font, with a colorful manuscript page illustration behind the 'S'. To the right, the words 'DIGITAL SCRIPTORIUM' are written in a spaced-out, black, sans-serif font. Below the logo is a navigation menu with links: 'DS Home | About DS | Using The Images | Basic Search | Advanced Search | Help'. The main content area is titled 'Cambridge, Harvard University, Houghton Library' and 'MS Richardson 32'. A 'View Full Record' link is visible in the top right corner. Three manuscript page thumbnails are shown in a row. Each thumbnail has a caption below it: 'f. 1 (vol. II)', 'f. 37 (vol. II)', and 'f. 1 (vol. I)'. Under each caption are the options 'small | medium | large' for image size selection.

Houghton Library manuscript record in Digital Scriptorium database

without retracing their steps. A series title in the HOLLIS records also allows the user to search the growing number of such materials. Currently there are 389 such HOLLIS records for manuscripts and the number will continue to grow.

Secondly, images and catalog records are available through Digital Scriptorium, a collaborative image database that currently contains records for material from 25 North American institutions, but which hopes to increase that number and to expand to worldwide coverage.

The manuscripts can be also discovered from the project website (http://hcl.harvard.edu/libraries/houghton/collections/early_manuscripts), where links to HOLLIS records of some digitized manuscripts and HOLLIS search strategies can be found.



The screenshot shows the Harvard College Library website page for 'Digital Medieval Manuscripts at Houghton Library'. The page features a red header with the Harvard College Library logo and name. Below the header is a navigation breadcrumb: 'Home > Houghton Library > Collections > Early Books & Manuscripts > Digital Medieval Manuscripts at Houghton Library'. The main content area is divided into two sections. On the left is a medieval manuscript illustration of a woman in a blue and gold dress, possibly a saint or noblewoman, seated and writing. On the right is a text box with the following content:

DIGITAL MEDIEVAL MANUSCRIPTS AT HOUGHTON LIBRARY

The Houghton Library's distinguished collection of medieval and Renaissance manuscripts represents a significant resource for the study of the Middle Ages and the Renaissance in Western Europe. Assembled through gifts and purchase over the past two centuries, this collection includes works in Latin, Greek, and most of the vernacular languages of Europe that are the primary sources for the study of the literature, art, history, music, philosophy, and theology of the periods.

This Web site provides strategies for searching Houghton's medieval manuscripts as well as links to bibliographies related to these materials that were compiled by the Library. Permission to publish from any manuscript is granted at the discretion of the [Curator](#). See Houghton's [Reproductions and Permissions](#) page for more information.

Project Staff

Project Manager:

William P. Stoneman, Florence Fearington Librarian of Houghton Library and Acting Curator of Early Books and Manuscripts

Project Team:

Susan Pyzynski, Associate Librarian of Houghton Library for Technical Services

Monique Duhaime, Staff Assistant, Houghton Library

Alison Harris, Metadata Assistant, Houghton Library

Joshua O'Driscoll, Graduate Student Assistant, Department of the History of Art & Architecture

Justin Stover, Graduate Student, Department of the Classics

Heather Hamilton, Special Collections Conservator, Weissman Preservation Center

Project Associates:

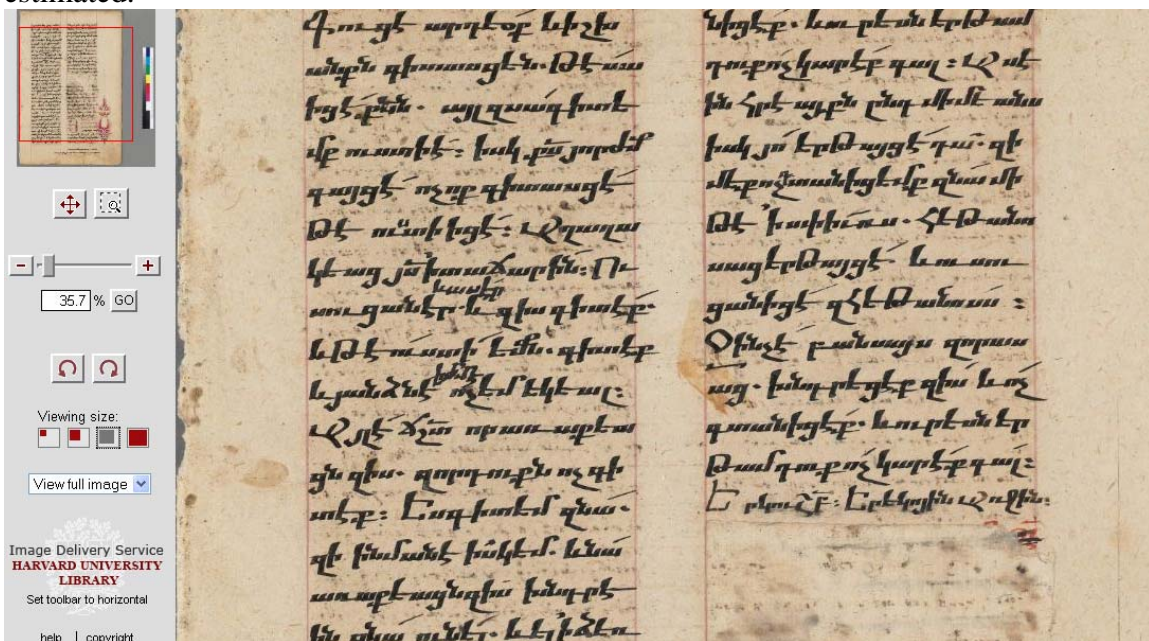
Margaret Hale, Librarian for Collection Digitization, Harvard College Library

Project Schedule

The project was planned accurately and effectively. Overall the time needed and the personnel involved were sufficient. Due to the pressure of other work, however, the project began late, but stayed on the revised schedule.

Lessons Learned

In planning a similar project in the future I would make two changes. Firstly, I would give serious consideration to using part of the budget to pay temporary project staff instead of using existing salaries and benefits as a cost share component. The project budget included a total personnel component of .60 FTE spread over 5 individuals. While temporary project staff would need to be trained and brought up to speed and supervised, it is especially unrealistic to expect the three members of the project team to perform their duties without a significant reduction in their permanent duties. In the end we did hire a temporary staff member to enter descriptive and structural information. Secondly, I would allow more personnel time for tracking the manuscripts and the images. Given that the preservation, imaging, cataloging and linking are performed at four different locations or times, the tracking of the process is more time consuming than we estimated.



Houghton Library Armenian manuscript page as shown in Harvard JPEG2000 web viewer

Project Results Presentation

The results of this LDI project have been presented on three occasions. On 15 October 2007 I made a presentation to the Medieval Studies seminar at Harvard's Barker Center for the Humanities. I was especially pleased that two graduates student, Justin Stover (Classics) and Joshua O'Driscoll (History of Art and Architecture), who had worked with me on the hyperlinked bibliographies were a part of that presentation. On 2 April 2008 I spoke as part of a faculty exchange program at Harvard's Dumbarton Oaks Center for Byzantine Studies in Washington, DC. On 9 May 2008 I spoke at the International Congress on Medieval Studies at the University of Western Michigan in Kalamazoo, MI,

in a session on “Teaching the Middle Ages with Manuscripts in the Twenty-First Century Classroom.”

Budget

The final LDI budget was \$101,687.59. This figure is composed of \$100,000.00 which was the amount awarded and \$1,687.59 in accrued interest. In order to maximize the impact of the project the entire budget was spent in digitizing the images and depositing those images in the DRS.

This project is continuing with funding from two private donors. Thus far the budget for the project consists of the following:

\$ 50,000.00	NEH
\$101,687.59	LDI
\$ 34,600.00	private donor
\$ 83,036.50	private donor
\$269,324.09	total