

**Center for the History of Medicine
Countway Library of Medicine**



**“Enabling Access to Historical Images of
the Harvard Medical School”**

Final Report, August 31, 2007

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Introduction

The Francis A. Countway Library of Medicine, one of the largest medical libraries in the world, serves the Harvard Medical School, Harvard School of Public Health, Harvard School of Dental Medicine, Boston Medical Library and the Massachusetts Medical Society. The Countway Library holds more than 630,000 volumes, subscribes to 3,500 current journal titles and houses over 10,000 non-current biomedical journal titles. The library also houses one of the world's leading medical history collections, and provides access to many electronic information resources.

The Countway's Center for the History of Medicine contains many unique and valuable materials including: printed works in the history of medicine, nearly 1000 incunabula, manuscripts and personal papers of physicians and scientists, archival records of the Harvard Schools of Medicine, Public Health and Dental Medicine as well as historical materials relating to Harvard-affiliated institutions, prints, portraits and photographs.

Project Goals

The goal of this project was to describe approximately 2500 historical images of the Harvard Medical School, and make them available through a series of OASIS finding aids; 1600 of these images would be digitized and linked to the finding aid. The finding aids would also include links to digitized pages of Harvard University's Annual Reports through the Harvard-Radcliffe Online Historical Reference Shelf. The project was designed to exploit the ability of the LDI infrastructure to support links among resources, specifically links between an EAD-encoded finding aid in OASIS, the digitized images and documents in the DRS (via the Image Delivery Service and Page Delivery Service). Additional access were to be provided to selected, high use images through VIA.

Project Background

Provenance of images

The historical images that are the subject of this project form part of a larger artificial collection at the Center known as the "Image Collection." This collection includes portraits of Harvard Medical School faculty and administrators, as well as other scientists and physicians; and additionally images of medical facilities and activities in the Longwood Medical Area, the region, and beyond. The "Image Collection" was created in the 1960's through a consolidation of images from archival records series, manuscript collections, vertical files, and fine art holdings. Images continued to be added in this manner to the artificial "Image Collection" until 1999.

Historical images of the Medical School are found in various formats that include black and white photographs and negatives, glass slides, color photographs and negatives, drawings, and engravings. Approximately 85% are black and white photographs, most of these deriving from the Medical Area News Office (now called the Office of Public Affairs), its earlier incarnations, or other Medical School offices. There are approximately 2500 images dating from 1866 to 1999.

Significance

These historical images are a critical part of the school's institutional memory, the source of its identity. They tell the story of the school, its activities, faculty, and students, and document the development of medical education, medical practice, and the Longwood medical area. These images, when understood in the context of archival documents, become still more valuable.

For example, the Medical School's home from 1883 to 1906 was located at 688 Boylston Street, now the site of the new wing of the Boston Public Library. Although the building no longer stands, historical images of its façade document the growing influence of laboratory science on the study of medicine at Harvard. The building's large windows supplied the natural light needed to illuminate work done by students and faculty at laboratory benches. A rare interior image shows the brilliancy of that light in a pathology lab where the curator of the Warren Museum is working, perhaps preparing a specimen to add to the educational collections of the museum (see Appendix I). Others depict rows of students at work with microscopes and labs with overhead piping, gaslights, and drains.

The special fittings depicted in the interiors are explained in the President's Report for 1880-81, pages 27-29, available online in the Harvard-Radcliffe Online Historical Reference Shelf. "As four fifths of the building were to be taken up by the laboratories and lecture-rooms devoted to the departments of anatomy, physiology, histology, chemistry, and surgery, the requirements in regard to light, heat, and fresh air were unusually stringent, and the provision of flues, drains, and fittings for water, gas, and steam was elaborate and peculiar." University president Charles Eliot fostered this move to a more scientific medical education, the tangible results of which are documented these rare interior images of teaching and learning.

Few of these individual images exist elsewhere. There is no other source that is as comprehensive, particularly for the years from 1866 through 1960. No other institution has an equal obligation to preserve access to them.

A majority of the images are in good condition. The exceptions are albumen prints, which are starting to silver, oversize photographs that have been mounted on acidic cardboard, now crumbling, color photographs of the 1950's, and oversize images in dimensions that are difficult to store. A conservation review by staff of the Weissman Preservation Center will be conducted to identify and resolve problems their condition presents to scanning and long term access.

Access and Use

The majority of images are grouped by subject and stored upright in oversized envelopes. Up to fifty photographs may be stored, undifferentiated, in no particular order in a single envelope. The local vocabulary term describing the subject of the images is printed on the exterior of each envelope, and envelopes are arranged in three groups: Portraits (largely individuals), Pictures (known places, things, or groups of persons), or Picture Subjects (unidentified persons, places, or things). The selection of categories and the assignment of images to those categories was often idiosyncratic, with the result that some images are "lost" in envelopes in which they will never be sought. A list of envelope

titles was made in 1999 and has been used since that time to retrieve groups of images that may respond to user inquiries. Retrieval of a single image is cumbersome, time-consuming and requires excessive handling of historical images.

A pilot project was undertaken in the summer of 2001 to test methods to individually identify and number images. A Control Database was developed in Microsoft Access and tested; to date, entries for 1,000 Medical School images have been added to the database. As part of this process, the contents of each envelope is sorted and weeded, vertical file and exact duplicates removed, and images to be retained rehoused in mylar folders and flat document cases. This Control Database associates each image with a series and subseries; it has dramatically reduced the need to handle archival images, while improving access to them. For the first time, department staff can locate and retrieve individual images. Researchers can cite specific images by number.

The Control Database was necessary to establish rudimentary intellectual and physical control of the collection. It is the main collection management tool and is be used to record condition and preservation notes and associate images and negatives. It will be used to gather and organize basic identification and descriptive information for export to a software application used for EAD text markup.

The historical Medical School images are the most heavily used part of the overall Image Collection. The Medical School images, some 2500 in number, or 8% of the collection, account for 57 % percent of all use of the Image Collection. Over the past three years, 200 images have been reproduced from the Medical School images; researchers have examined many times that number. A portion of these reproductions, 5 to 10%, has required specialized treatments, such as cropping or enlargement of a portion of an image.

Users are Medical School administrators, alumni, and those having an interest in the school, its faculty and alumni, and medical education.

Administrators are the most frequent users. Images have been used to plan for renovation and refurbishing of the atrium and faculty room of the Gordon Hall of Medicine, the School's administration building. Many images were reproduced in *A Legacy So Enduring* (2001), a publication issued by the Dean to celebrate the re-dedication of the renovated building. The Dean continues to distribute this publication to faculty, donors, and friends of the school. Many of these images were reproduced in the spring 2002 issue of the *Harvard Medical Alumni Bulletin*. The Registrar's office has used historical images to illustrate the Medical School's catalog in recent years. Images have been reproduced by the Office of Resource Development, Public Affairs, the Program in Medical Education, and other school offices to include in their publications and presentations and to support daily business. Exhibits in Gordon Hall and in the Countway Library, including the Warren Exhibition Gallery, draw on the Medical School images to interpret the development of medical education, medical practice, and the history of the school.

Non-administrative use includes that by faculty, alumni and outside scholars. Images have been requested to illustrate publications and documentaries and have been reproduced for genealogical and memorial purposes.

Project Benefit

This project will utilize the ability of OASIS to link to digitized images. Like the guide produced by the Houghton Library for Civil War images, finding aids for the Medical School images will provide the context regarding provenance typical of archival finding aids, but will also use the EAD format to describe visual images as individual items and as groups.¹ This project will exploit the linking capability of OASIS and extend its usefulness to visual materials.

The project will pilot a second type of linking. Linking across LDI resources increases the value of resource content exponentially, without requiring additional infrastructure. Because the subject matter supports and augments the documents that form the Harvard-Radcliffe Online Historical Reference Shelf, the University Archives has suggested that it would be appropriate that links to the proposed EAD finding aids appear on the Reference Shelf web page.² Additionally, to increase the likelihood that researchers will benefit from using the resources in conjunction, the descriptive information about images in the EAD finding aid will include links to specific pages in the digitized Annual Reports of the presidents and treasurers of Harvard (1826-1995) provided by the Reference Shelf.

The project will combine the advantages of archival description with those of item-level visual resource cataloging. Selected high-use, iconic images will be cataloged in OLIVIA and exported to VIA. In this way, users with different needs can be accommodated. Those looking for representative images can locate them in VIA; those with more scholarly interests can view in OASIS a greater array of images in context. Images in VIA may serve to publicize and bring a broader audience to the larger body of images described and made accessible in OASIS.

The images that are the subject of the project represent a small portion of the department's visual holdings. This project will develop policies and practices to support greater control and accessibility for the department's image collections as a whole. For libraries with similar holdings, this project may provide a useful model.

These historical images have never been fully described or made accessible, yet they have sustained heavy use. By associating images with information about provenance, providing a digital finding aid, scanning and linking images to the finding aid, and including selected iconic images in VIA, we anticipate an increase in the quality and volume of use by existing users. This comes at a critical time. We expect heightened administrative use of historical images in the near future. The one-hundredth anniversary of the groundbreaking for the Longwood campus of the Medical School will occur in 2003; the one-hundredth anniversary of the School's dedication will occur in 2006. The School's "North Quad" being built across Longwood Avenue, opposite the Medical School, will open in 2003. These events will spur a greater interest in the past and its relationship with current and future plans for the Medical School.

¹ Military Order of the Loyal Legion of the United States. Commandery of the State of Massachusetts, collector. Civil War collection: Images of individuals: Guide. at <http://oasis.harvard.edu/html/hou00124frames.html>.

² <http://hul.harvard.edu/huarc/refshelf/HROHRSHome.htm>

While non-administrative use has been modest, we believe that any effort to improve access to these images will result in expanded use. To this point, images have been nearly unknown and accessible only with the intermediation of reference staff. As descriptive practices improve, remote access is enabled, and the existence of images becomes better known, demand will increase.

To better focus the project to increase use of images, we will consult directly with users; this process has begun (see Appendix III, Letters of Support). A group of advisors from several user communities will be assembled to assist in the development of descriptive practices and other aspects of the project. These will include representatives of administrative offices and faculty of the University's History of Science program.

A potentially significant, but unintended benefit of the project has been the initiation of a dialogue with records creators in the Public Affairs Office and Media Services Unit regarding the creation, indexing, management, and use of images across the Medical School. Since a high volume of the images created by these offices are of archival value, any improvement in their management as active records benefits long term users as well. We are working with these offices to develop common cataloging terms and guidelines. We are also exploring whether it is feasible to design their proposed image management system to export descriptive data to a software application used for EAD text markup. This will make it easier to continue the work begun in this project.

Additional benefits of the project include improved knowledge of user needs and interests, increased visibility for the department's holdings generally, as new users are introduced to its collections, and closer collaboration with the University Archives.

Summary of Work Completed

The main work of the LDI Historic Photographs from Harvard Medical School project is complete. The project was designed to test a process for managing and providing for discovery and access to historical images. We anticipated that if the project were successful, we would continue to use this methodology to catalog photographs and create additional finding aids. In fact, this has happened: we have cataloged 5237 images (our original commitment was 2500); scanned 1600 images; and created 32 finding aids (our original commitment was for a limited number of archival finding aids, we included 13 personal papers collections).

Below is a summary of the work that was completed by staff from the Center for the History of Medicine (The Center) to close the project.

1. Work Product:

- We have identified, entered in the database, added to the appropriate finding aids 5237 images in the database. Of these images, we scanned 1600 images, all of which have been included in project's finding aids as thumbnails and full page jpegs.
- We have imbedded images from the LDI project in 32 finding aids, 19 of which have been produced completely from the image collections. Seventeen series of photographs have been described in these finding aids, and 13 personal papers finding aids now include images from the LDI project.
- Aleph and RLIN records have been created for all 19 new LDI finding aids. We have also updated the catalog records for those 13 personal papers collections which now contain LDI images.
- All 50 project images selected for inclusion in VIA have been cataloged in OLIVIA and exported to VIA.
- The EAD finding aids include 120 links to digitized pages in HRORS Annual Reports, which exceeds our original estimate of 100 links.

2. Infrastructure

- Policies and procedures developed to guide the project have been documented, updated and collated into a manual which will be used as a department standard for the photograph database management and finding aids creation for our image collections in the future.
- 5237 images from Countway's historic photographs collection have been re-housed, identified and described in the photograph management database.
- The LDI Project Archivist, Judy Greene, completed her work on the project on August 4, 2005. Center for the History of Medicine staff members who also participated in the completion of this project are: Virginia Hunt, Giordana Mecagni, Jennifer Pelose and Peter Rawson.
- The bulk of the project work for all of the originally designated series was completed on schedule. There has been some delay in completing the final 4 finding aids and catalog records due to EAD 2002 conversion problems and an unexpected leave of absence.

3. Project evaluation/outreach

- The project web page is updated as new finding aids are added, with links to an evaluation form and to project deliverables.
- Once the EAD 2002 finding aids go live, we will release the new web page with links to all of project finding aids.
- The project was featured in several publications over the course of the grant, and images appeared in the Center's "Image of the Month" web page.
- The project has been evaluated via analysis of user survey forms and reference transactions.
- The project's initial Advisory Committee included faculty, administrators, researchers, and representatives of the University Archives. Additional members drawn from faculty and researchers using historical images in their work were added later in the project.

Work Product

Images

We have identified, entered in the database, and added to the appropriate finding aids 5237 images in our image database. Of these images, we scanned 1600 images, all of which have been included in project's finding aids as thumbnails and full page jpegs.

Finding aid production

Throughout the project, we continued to revise the finding aid structure to accommodate differences in our initial calculations for the number of series, order of treatment, and approximate number of images. While processing the images we found that some series provided many more unique images that warranted scanning and description, while others were found to have very few images of interest. This is evidenced in the differing sizes of finding aids and the occasional combination of two or more series in one finding aid. At the conclusion of this project, we will have imbedded images from the LDI project in 32 finding aids, 19 of which have been produced completely from the image collections. Seventeen series of photographs have been described in these finding aids, and 13 personal papers finding aids now include images from the LDI project. Forty-eight members of the faculty are represented in the Faculty Portraits finding aids. During the course of the project, some of the finding aids were re-edited and re-encoded after the departure of the project archivist to make them compliant with EAD 2002 protocols. Production work for this last group of images and finding aids was completed by Center staff Virginia Hunt, Giordana Mecagni, Jennifer Pelose and Peter Rawson.

Finding aids completed in this project include:

1. Boston Medical Library. Images, ca. 1870-1971.
2. Harvard Medical School Buildings and Grounds, Early Locations. Images, ca. 1824-1975.
3. Harvard Medical School Buildings and Grounds, Longwood Avenue Quadrangle. Images, ca. 1863-1998.
4. Harvard Medical School Buildings and Grounds, Vanderbilt Hall and the Seeley G. Mudd Building. Images, ca. 1923-1980.
5. Harvard Medical School Classes and Reunions. Images, ca. 1883-1977.
6. Harvard Medical School Clubs and Associations Photographs, 1855-1977.
7. Harvard Medical School Departments Photographs, ca. 1913-1992.
8. Harvard Medical School Interiors. Images, ca. 1880-1978.
9. Harvard School of Dental Medicine Photographs, ca. 1868-1969.
10. Francis A. Countway Library of Medicine Buildings and Grounds, Clubs and Associations, Departments, Subjects. Images, ca. 1962-1998.
11. Francis A. Countway Library of Medicine. Events. Photographs, 1964-1966.
12. Francis A. Countway Library of Medicine Interiors. Images, ca. 1962-1998.
13. Harvard School of Public Health Buildings and Grounds, Interiors, and Subjects. Images, ca. 1937-1964.
14. Harvard School of Dental Medicine Buildings and Grounds and Interiors. Images, ca. 1993-1975.
15. Harvard Medicine School Events and Subjects. Images, ca. 1900-1983: Finding Aid.
16. Harvard Medical School Faculty and Staff Portrait Collection: A-C, 1861-1998.

17. Harvard Medical School Faculty and Staff Portrait Collection: A Finding Aid: D-W, 1865-1987
18. Harvard Medical School, Affiliated Hospitals. Images, 1864-1975.
19. Harvard Medical School, Public Affairs Department. Events Photographs,
20. Aub, Joseph C. (Joseph Charles), 1890-. Papers, 1918-1974.
21. Benedict, Francis Gano. Papers, 1870-1957.
22. Curran, Jean Alonzo, 1893-. Papers, 1871-1986.
23. Cutler, Elliott Carr, 1888-1947. Papers, 1911-1948.
24. Dawes, Lydia Gibson, 1896-1990. Papers, 1926-1959.
25. Drinker, Cecil Kent, 1887-1956. Papers, 1898-1957.
26. Finland, Maxwell. Papers, 1916-2003.
27. Guttmacher, Alan, 1898-. Papers, 1860s, 1898-1974.
28. Kass, Edward H. (Edward Harold), 1917-. Papers, 1908-1990.
29. Porter, William Townsend, 1862-1949. Papers,
30. Richardson, Edward Peirson, 1881-1944. Papers, 1851-1955, undated.
31. Richardson, Maurice Howe, 1851-1912. Papers, 1869-1913.
32. Stone, Abraham, 1890-. Personal and Professional Papers, 1916-1959.

All of the finding aids contain references to HRORS publications. Kate Bowers of the University Archives provided HRORS URNs for all of our finding aids; she has supplied 120 persistent identifiers for the project, which exceeded our original calculation of 100 citations.

Aleph records have been created for all 19 new LDI finding aids. These records are live in HOLLIS and RLIN. This number does not include the 13 personal papers collections that contain LDI images, all of which have HOLLIS and RLIN records for their finding aids.

VIA records have been submitted for 50 images, which is 100% of the planned VIA images have been created for the project.

Infrastructure

Templates, policies and procedures

The project archivist, her supervisor and the archivist who oversees the photograph collections met weekly throughout the project to discuss issues that arose during the production work of the project, from our feedback from our advisory committee or from researchers. These meetings allowed us to document the project workflow and troubleshoot any problems that might have kept us from reaching the project goals. As the final part of her work, the project archivist wrote a manual to document the workflow of the entire project so that the department can use this as a reference source for continued work on the photograph collections. This manual includes information on data entry in the database, workflow and procedures for sending items to the Harvard College Library Digital Imaging Lab (DIG) lab, and tracking information on the restriction and copyright status of our images.

Image rehousing

We continue to rehouse, identify and describe images from the image collection. We have now completed this process for over 5200 images. The latest additions include images of faculty and staff at Harvard Medical School, images of the Harvard Medical School affiliated hospitals, and selected images from 12 of our previously processed collections of personal papers. We anticipate continuing to work on our image collections, using our experience in this project as a model for workflow, as staff and internship resources permit. As we are able to continue this process, we increase the benefits the project by giving a greater scope from which to select images and by creating a richer online resource.

Project staffing

The LDI Project Archivist, Judy Greene, completed her work on the project on August 4, 2005. Peter Rawson, our photograph archivist, worked closely with Judy to resolve any problems with the photograph cataloging and continued to add images to the database and provide production work for the last two finding aids, as well as oversee any new image input in the database done by Simmons interns. Production work for adding images to personal papers collections, all of which were generated by individuals who were either Harvard faculty or Harvard-affiliated, was completed by the Center for the History of Medicine archivists Jennifer Pelose and Giordana Mecagni. Virginia Hunt, Assistant Archivist at the Medical School archives, oversaw the completion of the LDI finding aids, the addition of images to the personal papers finding aids and the completion of the remaining tasks for the project.

Project schedule

The project was in production mode for 24 months, which includes the 6 month project extension after the project archivist completed her term. For a majority of that time, we consistently met our target goals; however, production became more active in months 12 through 18 of the project as workflow became well established and we were able to overcome some of our initial problems with the Xmetal 4.5 upgrade and the DIG lab back up. Because we added another series to the project, as well as some extra faculty portraiture, we asked for a 6-month extension to the project to complete digitization of

the last 200 images of the project, encode the last 3 new finding aids and incorporate images into existing personal papers finding aids after the departure of the project archivist. In mid-January, prior to the end of the project, the Assistant Archivist went on leave unexpectedly, which pushed completion of the last few tasks of the project off until mid-April 2006. Additionally, the subsequent conversion of OASIS to EAD 2002, caused a delay in uploading the last finding aids for the project. Once problems with the OASIS interactive loader were resolved, the remaining finding aids were sent to production.

Outreach

We have continued to add to the project web page. Our page with direct links to finding aids in OASIS

(http://www.countway.harvard.edu/archives/ldi_historical_images_guides.shtml)

has been continually enhanced with new links. This page expedites discovery for administrators, HMS/HSDM faculty, and other researchers who come to the Countway Rare Books Department repository web page early in their search for information about holdings.

Once the EAD 2002 finding aids go live, we will release the new web page with links to all of project finding aids. The Countway's new website, which is expected to be released in September 2007, will eliminate the project page. Instead, all OASIS finding aids will be available from a browse page. The decision to create the browse page for all finding aids was based in part on the positive user reaction to the project page.

We continue to load selected images on to our "Image of the Month" pages, and adding links to the related directories on specific topics (students, faculty, events, art and artifacts).

To bring more researchers to the LDI web page, we have linked to it from several "Image of the Month" pages. We will continue to load selected images on to our "Image of the Month" pages, which is a popular part of the Center's webpage, as a way to feature images from our holdings, and links to the related directories on specific topics (students, faculty, events, art and artifacts). The main index page for these topics is found at <http://www.countway.harvard.edu/archives/iotm/index.shtml>.

The project was also featured in several publications including:

- The Medical School's "WebWeekly," an electronic news publication, http://webweekly.hms.harvard.edu/archive/2004/5_24/spotlight.html
- The Harvard Longwood Medical Area intranet, "eCommons," which serves as a portal to many of the administrative, research, and education resources in the area institutions <http://ecommons.med.harvard.edu/default.asp>
- *Focus*, the school's print news publication http://focus.hms.harvard.edu/2004/June4_2004/bulletin.html
- The *Harvard Medical Alumni Bulletin*
- The Countway home page for six weeks

A large portion of the scanned images were featured in the campus centennial in September of 2006 in publications, postcards, and posters. In one instance, the image management database was linked to an application that displayed a slideshow of these images and captions continuously, on LCD screens, as part of the library's open house celebration of the campus anniversary.

Project Evaluation

A survey was conducted to ascertain who is using the department's image collection, how they learn of the collection or images and for what projects they are using the images. To gather this information we surveyed all users who requested information on our images and/or used our images by either contacting us remotely or using our reading room.

We implemented the survey process from December of 2003 to September 2004. After a period of time, the data we were receiving from the surveys began to stabilize and certain patterns in discovery and research began to emerge. When it became apparent that these patterns were not changing we halted the survey and analyzed the data.

Two hundred patrons participated in this survey process. Of those surveyed, sixty percent of our users were referred to the collections by doing a subject search for the image and finding the descriptions of the images in our online finding aids. The finding aids were accessed by searching OASIS, HOLLIS or through outside search engines. This marks a significant difference in how users found our images in the past; at that time most were past users themselves, or expected the Countway to have such collections based on its reputation.

Most users continued to report that they preferred to find their information through subject and name searches, rather than by image date or by association with an organization or historical event. Only a few began their searches with knowledge of the creator of the image.

Most users reported that they were able to obtain the image they wanted from our collections. Fifty percent of these images were used in print publications, and the rest were distributed among multi-media publications, personal research and presentations and lectures.

During the course of the project, primary research subjects included historical research on individual physicians and surgeons, particularly Joseph Murray and the first kidney transplant. This is not too surprising as 2004 was the 50th anniversary of the first kidney transplant and Murray won the Nobel Prize for this operation. Other subjects included: history of nursing, Harvard Medical School alumni and class reunions, Harvard-affiliated Hospital history, history of nursing, and Harvard Medical School deans.

The majority of our more recent users have been affiliated with Harvard Medical School, Dental School, or School of Public Health. The rest of the users have been affiliated with other academic institutions, affiliated hospitals, or commercial organizations.

As the number of finding aids on the site increases, we have also seen an increase in reference inquiries about our image collections. In addition, because our users can view our images on the finding aids, we have had scholars and alumni contact us to offer additional information about our photographs, which is extremely helpful in situations where we have little or none on the provenance or content of the image.

One of the major benefits of this project is our new ability to fill requests for our images very quickly. Before we began this project, one could compare filling patron requests for images to a fishing expedition. Unpublished images presented a particularly difficult problem as patrons would have to describe the type of an image they were seeking to the

public services librarians, rather than being able to direct them to a published or scanned image. With the patron's description, members of the staff had to search through a large number of intellectually uncontrolled folders of images for a relevant image, photocopy the image and then fax or scan and send that image to a user. If we were able to find a suitable image for the patron, the reproduction of the image then had to be processed through Imaging Services, further extending the turnaround time for the patron request. Needless to say, this was often a time consuming and frustrating process for both the patron and the Center staff.

For scanned images in the DRS, our turnaround time for filling reproduction orders has decreased from two weeks to ten minutes. We can also provide our users with an instant preview of the images they are requesting so that we no longer have to rely on patron description and subsequent scanning, faxing or sending photocopies for approval. These improvements in access have decreased the time intensiveness of the process, and, consequently, workload for those staff members who provide these services for our department.

The vast improvements in access to our images and our ability to reproduce them quickly are evidenced by a recent request from our Public Affairs department. The department requested an image for a presentation for the same afternoon and we were able to help them find what they needed and provide them with a scan for that image in an hour. A similar request would have previously taken several hours to fill, even in rush circumstances.

Our ability to provide images to our patrons more quickly has raised expectations of our services, and, happily we are able fulfill those expectations. We now have a new benchmark for measuring our public access programs, and because we can provide a higher level of service, we are able to leverage support from the HMS administration, at one time our largest body of clients for historic images.

Problems and Resolutions

Throughout the project, we continued to revise the finding aid structure to accommodate differences in our initial calculations for the number of series, order of treatment, and approximate number of images. While processing the images we found that some series provided many more unique images that warranted scanning and description, while others were found to have very few images of interest. This is evidenced in the differing sizes of finding aids and the occasional combination of two or more series in one finding aid. At the conclusion of this project, we will have imbedded images from the LDI project in 32 finding aids, 19 of which have been have produced completely from the image collections. Seventeen series of photographs have been described in these finding aids, and 13 personal papers finding aids now include images from the LDI project. Forty-eight members of the faculty are represented in the Faculty Portraits finding aids.

During the course of the grant, OASIS was upgraded to EAD 2002. Consequently, some of the finding aids which had been begun before this upgrade had to be re-edited and re-encoded to make them compliant with EAD 2002 protocols. We had particular difficulties with the digital object associated tags (<dao>), as the structure for displaying images in the finding aids the way we originally designed changed significantly and we needed to re-code many finding aids in those areas. Some of this work had to be done after the project archivist's term was completed, so some of the archives and manuscripts

processors at the Center were asked to assist in this initiative so that we could meet all of our goals.

The Center also experienced significant problems with uploading the EAD 2002 finding aids to the OASIS production site, and this, coupled with the conversions process and upgrading our machines internally, delayed the release of several of our finding aids. We worked with OIS to solve this problem and have been able to post all finding aids at this writing. We anticipate adding more images to our finding aids as we are able to process and digitize more photographs.

Lessons Learned

Reflecting on the process of completing this grant project we realized that we would make certain changes if we were able to do it again. We designed the database and the finding aid prototype for the project prior to the start of our full time project archivist. Soon after full time work began on the project, it became clear that both the database and the finding aid structures would need significant changes to capture the information about the images effectively and to make the workflow less arduous.

In the database we found that we had to add extra fields to capture and distinguish between internal collection management information and external notes that would appear in our finding aids. We also added fields providing metadata about the digitized images to better manage the scanning process. These included fields for information about the copyright status of the image, the restrictions on access for the digitized image and fields for the URNs for the full-sized image and the thumbnail.

These changes in capturing certain metadata were later reflected in changes in the production of finding aids. The notes we included about each individual image became more robust, and included better description about the physical aspects of the image as well as the content. Because many of our images were separated from their original context and collections years ago, we decided to create artificial series of images reflecting their current groupings by subject rather than catalog them as single images. Thus, we also struggled with how we could best to balance providing adequate access to the images within the finding aids with maintaining some sort of context for the images as part of a larger group of like images. At times this compromise made the hierarchical structure of the finding aids clunky and somewhat inconsistent.

Additionally, the OASIS search engine proved to be very slow for searching and frustrated our users. We would often point them directly to the image in the finding aid so they could bypass the search engine. Users who were not familiar with OASIS occasionally experienced frustration with the interface and had difficulty understanding search results as well as how to find what they needed in a finding aid. For example, in situations where a digitized image was not imbedded in a finding aid, users did not understand how use the descriptions in the finding aid to find other images in the collection. Thus, our public services staff would do a guided search with them, consequently adding to the time needed to find the image. This may have been due to the level of user experience with doing research in historical collections, but it was nonetheless brought to our attention during the project. Lastly, some of our advisory committee was unhappy with the constraints of the OASIS style sheet, and seemed to prefer that we put the document in html rather than using OASIS.

Despite these problems, we are still happy that we chose to use OASIS as our primary resource discovery tool for the project. We liked that OASIS works with internet search engines so users do not have to know how to use a special Harvard search engine (or that they would have to go find a Harvard search engine) to find our images. Using OASIS also allowed us to make links to HRORS citations that enhanced the information we had provided in our finding aids about images and provided a richer historical context. We believe that once the interface and search time issues with OASIS are resolved, many of these issues will cease to be a problem and our finding aids will be more user-friendly. Based on positive user reaction to the project webpage, which provided a browse list of finding aids, we have added a browse page to the Center's website that includes all OASIS finding aids.

Financial Summary

Salary and fringe benefits include amounts for a cataloging archivist. Estimates of the cost of digitization were based on an analysis of a survey of 20% of the archival images to be digitized and described during the project. While the numbers of over-sized images proved smaller than originally thought, the cost estimates were accurate. Scanning costs averaged \$12.50 per image.

An unexpected cost was the medical school's gift administration fee (15%) assessed on the project position, which the Countway paid in full.

Proposed budget:
\$101,028.

Total Expenditures
Total = 102,416.77

Grant project required 1:1 matching funds

LDI contributed \$50,514

Countway contributed \$51,902.77 to the project and \$12,309.68 in assessment fees for a total contribution of \$64,212.45

LDI Project Advisory Committee

The original Advisory Committee for our LDI project included faculty, administrators, researchers, and representatives of the University Archives. The Board provided valuable feedback and input into the design and usability of the finding aids. They also provided advice on access services as frequent clients of the Center and users of the image collections. The original group members are listed below:

- Don Gibbons, Associate Dean for Public Affairs, Harvard Medical School
- Kathryn Goodfellow, Asst. Director of Communications, Office of Resource Development
Harvard Medical School
- Nora Nercessian, Assistant Dean of Alumni Affairs and Special Projects
Harvard Medical School Alumni Office, Harvard Medical School
- Robin G. McElheny, Associate University Archivist for Programs
Harvard University Archives
- Allan M. Brandt, Amalie Moses Kass Professor of the History of Medicine
Dept. of the History of Science, Harvard University
- Nancy Richard, Librarian and Curator of Manuscripts, Bostonian Society
Boston, MA
- Susan Von Salis, Museum Archivist, Harvard University Art Museums, Harvard
University

Additional members to the committee drawn from faculty and researchers using historical images in their work were added later in the project. They are as follows:

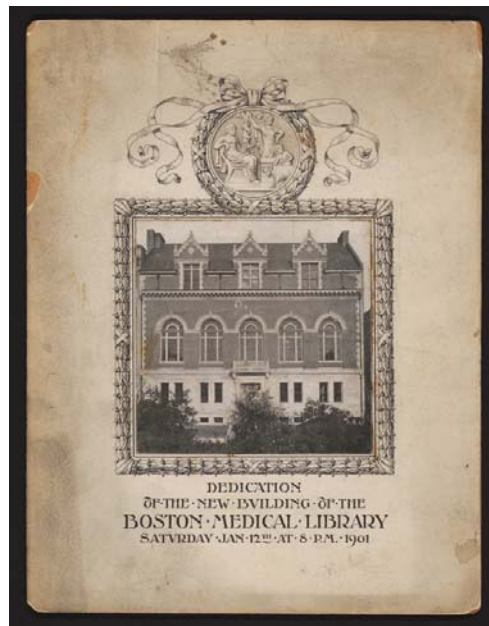
- Peter V. Tishler, M. D, Chair of the Center for the History of Medicine's sub-committee
- Scott H. Podolski, Member of the Center for the History of Medicine's sub-committee and history of medicine scholar
- Leah B. Gouley, a public information officer at HMS,
- Jeff Cleary, a member of the public affairs staff who managed and used images heavily in his work at HMS

APPENDIX I: A Selection of Digitized Images

Massachusetts General Hospital Isolation Ward adjoining the Bulfinch Building and Harvard Medical School, ca. 1975. Copy photograph of original photograph, ca. 1858



*Dedication of the new building of the Boston Medical Library, 1901.
Photomechanical print.*



[View of the dental ward, General Hospital No. 20.
Dannes-Camiers, France], ca. 1915-1919.

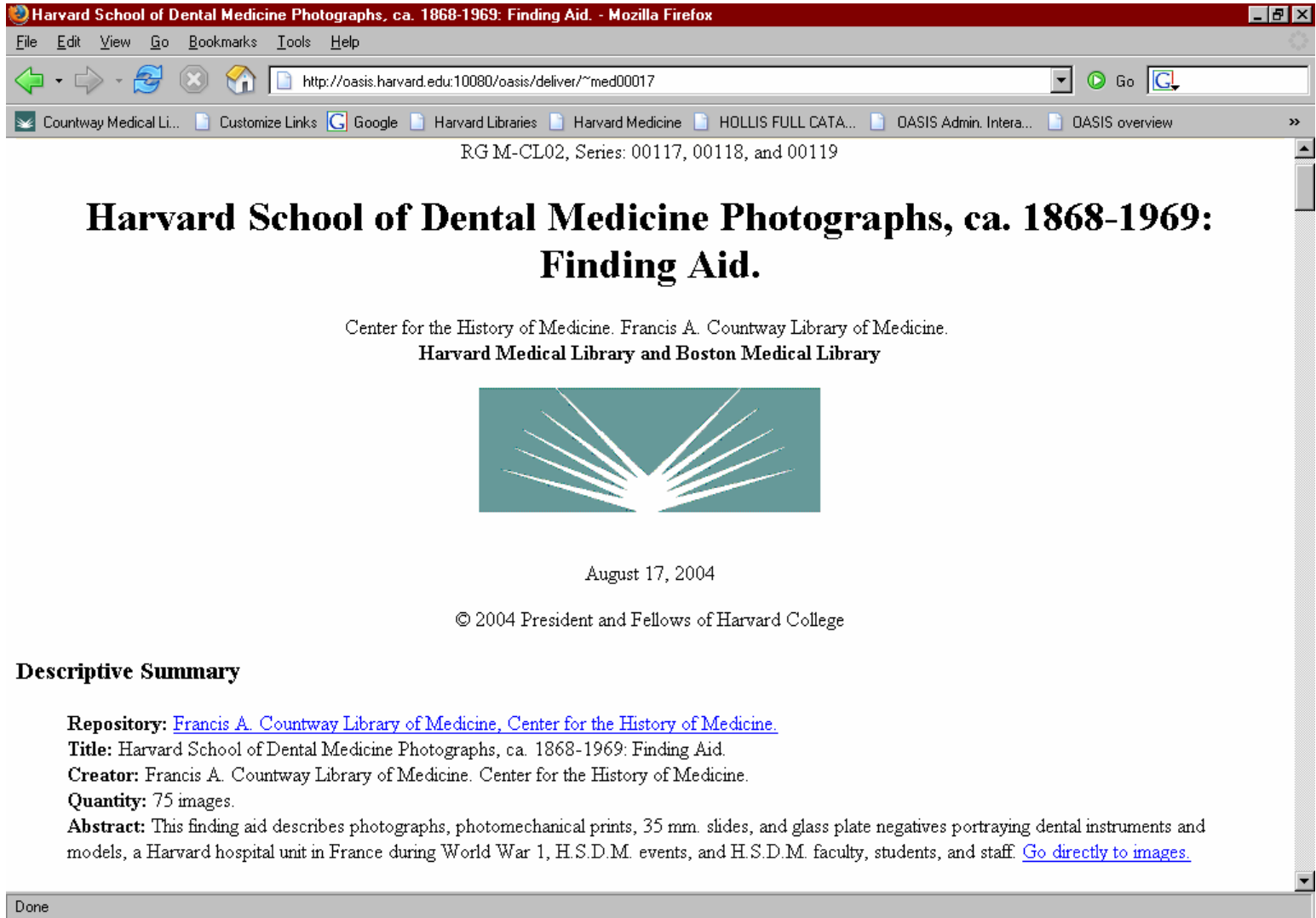


[Alice Hamilton with Eleanor Roosevelt], ca. 1940.



APPENDIX II: Screen shots of OASIS finding aids

Front matter for the OASIS finding aid for Harvard School of Dental Medicine Photographs series.



The screenshot shows a Mozilla Firefox browser window with the following content:

Harvard School of Dental Medicine Photographs, ca. 1868-1969: Finding Aid. - Mozilla Firefox

File Edit View Go Bookmarks Tools Help


http://oasis.harvard.edu:10080/oasis/deliver/~med00017

Countway Medical Li... Customize Links Google Harvard Libraries Harvard Medicine HOLLIS FULL CATA... OASIS Admin. Intera... OASIS overview

RG M-CL02, Series: 00117, 00118, and 00119

Harvard School of Dental Medicine Photographs, ca. 1868-1969: Finding Aid.

Center for the History of Medicine. Francis A. Countway Library of Medicine.
Harvard Medical Library and Boston Medical Library



August 17, 2004

© 2004 President and Fellows of Harvard College

Descriptive Summary

Repository: [Francis A. Countway Library of Medicine, Center for the History of Medicine.](#)

Title: Harvard School of Dental Medicine Photographs, ca. 1868-1969: Finding Aid.

Creator: Francis A. Countway Library of Medicine. Center for the History of Medicine.

Quantity: 75 images.

Abstract: This finding aid describes photographs, photomechanical prints, 35 mm. slides, and glass plate negatives portraying dental instruments and models, a Harvard hospital unit in France during World War 1, H.S.D.M. events, and H.S.D.M. faculty, students, and staff. [Go directly to images.](#)

Done

Hollis record for the Harvard Medical School Interiors images finding aid.

The screenshot shows a Mozilla Firefox browser window with the following details:

- Address Bar:** <http://lms01.harvard.edu/F/BYY8A1THUF8Y4DR3VHJN7ZELC6NYRFC361QC1ITMXQEVEAN2-02230?func=find-b&fir>
- Bookmarks Bar:** Countway Medical Li..., Customize Links, Google, Harvard Libraries, Harvard Medicine, HOLLIS FULL CATA..., OASIS Admin. Intera..., OASIS overview
- Navigation Buttons:** Print/Save/Send, Add to List, View List, Last Browse, Back to Results List
- Format Selection:** Choose format: [Full view](#) | [Short view](#) | [MARC](#)
- Record Information:** Record 1 out of 1. Navigation buttons: Previous Record, Next Record
- Title:** [Harvard Medical School Interiors. Images, ca. 1880-1978.](#)
- Description:** 192 images.
- Description:** Images are organized into 13 subseries based on location or subject. Within each subseries similar photographs are organized into image groups. Subseries and image groups are arranged alphabetically. Individual images are arranged chronologically within image groups.
- Summary:** This finding aid describes photographs, lantern slides, negatives and photomechanical prints depicting interiors of Harvard Medical School buildings at locations on North Grove Street (1847-1883), Boylston Street (1883-1906) and Longwood Avenue (1906-present). Included are images of Warren Anatomical Museum artifacts stored at the North Grove Street location; early images of laboratories at 688 Boylston Street; and later images of laboratories, classrooms, libraries, and other interior spaces in the Boylston Street building after it had become part of the Boston University campus. Images of the Longwood Avenue Quadrangle include classrooms, laboratories, meeting rooms, administrative offices, libraries, building details and renovations; the power house; and the Warren Anatomical Museum. Also included are images of students, faculty, deans, and alumni of the Medical School; library, curatorial, and administrative staff, as well as classes, faculty meetings, and social events sponsored by the Dean's Office. Images of building exteriors and grounds are described elsewhere.
- Notes:** The Harvard Medical School Interiors. Images, ca. 1880-1978, is a series from an artificial collection assembled in the 1960s from the holdings of the Harvard Medical Library and the Boston Medical Library. The photographs are now housed at the Center for the History of Medicine in Countway Library. Images were acquired individually or removed from manuscript or archival collections and filed by subject. Because of this practice, the provenance of many of the images has been lost.
Electronic finding aid includes selected images.
- Finding aids:** Electronic finding aid available (99,400 bytes). <http://nrs.harvard.edu/urn-3:HMS.Count.med00031>
- Subject:** [Berry, George Packer, 1898-](#)
[Bloomquist, Harold.](#)

Done

Appendix 4: VIA Records

VIA record for Photograph of Samuel Dudley House, Roxbury, Mass., taken from Parker Hill

VIA Record - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://via.harvard.edu:9080/via/deliver/fullRecordDisplay?_collection=via&inolD=192615&recordNumber=11

Countway Medical Lib... Customize Links Google Harvard Libraries Harvard Medicine HOLLIS FULL CATAL... OASIS Admin. Interac... OASIS overview


Online Archival Search Information Syst... VIA Record

Record 1 of 2 | <<Previous record | [Next record](#)>> | Jump to record # Go

From the search **harvard medical school in (Anywhere) and quadrangle in (Anywhere)**

Save entire record...

Work



Save this...

Title: Samuel Dudley House, Roxbury, Mass., taken from Parker Hill

Work Type: photographs

Creator: Folsom, A. H. (active ca. 1860s-1900s), photographer

Date: 1863

Dimensions: 27.5 x 37.5 cm. (photo), 29.5 x 39 cm. (mount)

Topics: houses; rivers; landscape views

Materials/Techniques: black and white photography on paper
Mounted on cardboard.

Note:
Provenance: Inscription on verso: "Dr. James B. Ayer's, 518 Beacon St., Boston."
General: On verso: Sam'l Dudley House, Roxbury, Mass. Taken from Parker Hill in 1863 by A.H. Folsom, Photographer, 48 Alleghany St., Roxbury. Also Order Box, 34 Bromfield St., Boston.

Location: Samuel Dudley House, Roxbury, Massachusetts, United States

Related Work: Part of **Harvard Medical School** Buildings and Grounds, Longwood Avenue **Quadrangle**. Images, ca. 1863-1998

Related Information: **Harvard Medical School** Buildings and Grounds, Longwood Avenue **Quadrangle**. Images, ca. 1863-1998: Finding Aid

Use Restrictions: Francis A. Countway Library of Medicine: Retrieval requires advance notice. There may be restrictions on access to some materials. Consult the Reference Librarian for further information.

Repository: Francis A. Countway Library of Medicine

Done

Start | RareBooks | Inbox - Microsoft Outlook | LDI_final_status_report1 - ... | VIA Record - Mozilla ...

3:51 PM

VIA record for [Medical College and operating theatre of Massachusetts General Hospital]

VIA Record - Mozilla Firefox

File Edit View History Bookmarks Tools Help


http://via.harvard.edu:9080/via/deliver/fullRecordDisplay?_collection=via&inolD=190946&recordNumber=18

Countway Medical Lib... Customize Links Google Harvard Libraries Harvard Medicine HOLLIS FULL CATAL... OASIS Admin. Interac... OASIS overview

Online Archival Search Information Syst... VIA Record

Save entire record...

Work



Save this...

Title: [Medical College and operating theatre of Massachusetts General Hospital]

Work Type: photographs

Date: ca. 1975

Description: Copy photograph of original photograph, ca. 1875.

Dimensions: 20.5 x 25.5 cm.

Topics: **medical** schools; hospitals; operating rooms

Materials/Techniques: black and white photography on paper

Note: *General:* Inscription on verso: "Rear of **Medical School**. From front of Bulfinch." Accompanying note: "Photograph taken between 1903 and 1911 from corner at **North Grove Street** and Parkman **Street**. The **school** building was purchased by the MGH in 1909 and demolished in 1911."

Location: **Harvard Medical School** (N. Grove St.), **Harvard** University, Boston, Massachusetts, United States
Massachusetts General Hospital, Boston, Massachusetts, United States

Related Work: Part of **Harvard Medical School** Buildings and Grounds, Early Locations. Images, ca. 1824-1975

Related Information: **Harvard Medical School** Buildings and Grounds, Early Locations. Images, ca. 1824-1975: Finding Aid

Use Restrictions: Francis A. Countway Library of Medicine: Retrieval requires advance notice. There may be restrictions on access to some materials. Consult the Reference Librarian for further information.

Repository: Francis A. Countway Library of Medicine
00097.001
S001.01

Record Identifier: olvwork288890

Done

Start | RareBooks | Inbox - Microsoft Outlook | VIA Record - Mozilla ... | LDI_final_status_report1 - ...

4:00 PM

Appendix 5: Publicity

The Harvard Longwood Medical Area intranet, “eCommons,” which serves as a portal to many of the administrative, research, and education resources in the area institutions <http://ecommons.med.harvard.edu/default.asp>

The screenshot shows the eCommons Harvard Medical Intranet website. The browser window title is "eCommons - Microsoft Internet Explorer". The address bar shows "http://ecommons.med.harvard.edu/default.asp". The page features a navigation menu with "APPLICATIONS", "PREFERENCES", and "EMAIL". The main content area is personalized for "Kathryn Baker" and includes tabs for "General", "Education", "Research", and "Personal".

Search

search for people

Last Name: Go

- [Harvard Directory](#)
- [HMS Alumni](#)

search eCommons

Keywords: Go

[more search options](#)

Digital Library

- [Digital Library Home](#)
- [Electronic Journals](#)
- [Countway Library](#)
- [Electronic Databases](#)
- [Hollis Catalog](#)
- [Electronic Textbooks](#)

[view other resources](#)


General Links

favorite General links

- [Division of Medical Sciences](#)
- [HMS Focus](#)
- [Harvard School of Dental Medicine](#)
- [HMS Quad Bulletin](#)
- [Harvard University](#)
- [HMS Web Weekly](#)
- [HMS-Affiliated Institutions](#)

Highlights

Rare Images of HMS Now Available on the Web



A special project under way at Countway Library will enable direct access to archival images of HMS, like the above image that depicts the HMS Department of Pathology circa 1913. These historical photographs, a critical part of the School's institutional memory, document the development of medical education, medical practice, and the Longwood Medical Area. More than 4,000 images will be described in Web-based subject guides that will include scans of 1,600 representative images. Each guide contains information about rights and usage. The first guides are now available online. [\[more...\]](#)

[view other Highlights](#)

News & Announcements

General Announcements

- [Dean, Faculty President Elected to Academy of Arts and](#)

The Medical School's "WebWeekly," an electronic news publication

Harvard Medical School - WebWeekly - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Favorites Media Print

Address <http://webweekly.hms.harvard.edu/> Go

Links [DOCLINE](#) [OASIS](#) [SuperPages.com](#) [Webmail](#) [White Pages](#) [OASIS TEST](#) [Research matrix](#) [calculator](#) [Library Stuff](#) [Class Roster](#)



Web Weekly

CALENDAR **JOBS** **HMS HOME** **HOSPITALS** **BACK ISSUES** **FEEDBACK**

News from the Harvard Medical Community

May 24, 2004

In Print



Photo by Steve Gilbert

From Focus:
Suppressor Cell Subset
Crucial Against
Autoimmunity

In the 1960s, the hypothesis was advanced that immune suppressor cells prevent autoimmune

Headlines

[Diabetes Drug Improves Metabolic Changes Associated with HIV Combination Therapy](#)

Upcoming

51st Annual Kenneth D. Blackfan Lecture:
[The Future of Genomic Medicine](#)

Francis Collins, National Human Genome Research Institute, NIH
Wednesday, June 2, 2004
12:00-1:00 p.m.

Lab Works

Spotlight



[Rare Images of HMS Available on Web](#)

A special project under way at Countway Library will enable direct access to archival images of HMS, like the one above of the Department of Pathology circa 1913. More than 4,000 images will be described in Web-based subject guides including scans of 1,600 representative images. Each guide will have information about rights and usage. The first guides are currently available online.

<http://www.massgeneral.org/news/releases/051704hadigan.htm> Internet

Flyer for Women in Medicine Program



- **Enabling Access to Historical Images of the Harvard Medical School: A Library Digital Initiative Project**

Over the next year, a special project at the Countway Library will enable direct access to archival images. These historical photographs, a critical part of

the school's institutional memory, document the development of medical education, medical practice, and the Longwood medical area. More than 4,000 images will be described in web-based subject guides that will include scans of 1,600 representative images and, for historical context, links to Dean's Reports in the Harvard-Radcliffe Online Historical Reference Shelf.

The guides, called finding aids, are available in OASIS, Harvard's publicly accessible union catalog of finding aids. Researchers can use key words, names, places, subject headings or other terms to search a single finding aid, or all of Harvard's finding aids simultaneously.

To go to guides directly, see the Countway web at http://www.countway.harvard.edu/archives/ldi_historical_images_guides.shtml

- **Image of the Month Archives**

Each month, The Archives and Records Management Program showcases an image from the holdings of the Department of Rare Books and Special Collections. These historical images of the people, places, artifacts, and events that comprise our community remind us of the rich history we all share. For Image of the Month archives see Countway web:

<http://www.countway.harvard.edu/archives/iotm/index.shtml>

First class of women admitted to Harvard Medical School, 1945



Appendix 6: Links to the OASIS finding aids

1. [Boston Medical Library. Images, ca. 1870-1971.](#)
2. [Harvard Medical School Buildings and Grounds, Early Locations. Images, ca. 1824-1975.](#)
3. [Harvard Medical School Buildings and Grounds, Longwood Avenue Quadrangle. Images, ca. 1863-1998.](#)
4. [Harvard Medical School Buildings and Grounds, Vanderbilt Hall and the Seeley G. Mudd Building. Images, ca. 1923-1980.](#)
5. [Harvard Medical School Classes and Reunions. Images, ca. 1883-1977.](#)
6. [Harvard Medical School Clubs and Associations Photographs, 1855-1977.](#)
7. [Harvard Medical School Departments Photographs, ca. 1913-1992.](#)
8. [Harvard Medical School Interiors. Images, ca. 1880-1978.](#)
9. [Harvard School of Dental Medicine Photographs, ca. 1868-1969.](#)
10. [Francis A. Countway Library of Medicine Buildings and Grounds, Clubs and Associations, Departments, Subjects. Images, ca. 1962-1998.](#)
11. [Francis A. Countway Library of Medicine. Events. Photographs, 1964-1966.](#)
12. [Francis A. Countway Library of Medicine Interiors. Images, ca. 1962-1998.](#)
13. [Harvard School of Public Health Buildings and Grounds, Interiors, and Subjects. Images, ca. 1937-1964.](#)
14. [Harvard School of Dental Medicine Buildings and Grounds and Interiors. Images, ca. 1993-1975.](#)
15. [Harvard Medicine School Events and Subjects. Images, ca. 1900-1983: Finding Aid.](#)
16. [Harvard Medical School Faculty and Staff Portrait Collection: A-C, 1861-1998.](#)
17. [Harvard Medical School Faculty and Staff Portrait Collection: A Finding Aid: D-W, 1865-1987](#)
18. [Harvard Medical School, Affiliated Hospitals. Images, 1864-1975.](#)
19. [Harvard Medical School, Public Affairs Department. Events Photographs.](#)
20. [Aub, Joseph C. \(Joseph Charles\), 1890-. Papers, 1918-1974.](#)
21. [Benedict, Francis Gano. Papers, 1870-1957.](#)
22. [Curran, Jean Alonzo, 1893-. Papers, 1871-1986.](#)
23. [Cutler, Elliott Carr, 1888-1947. Papers, 1911-1948.](#)
24. [Dawes, Lydia Gibson, 1896-1990. Papers, 1926-1959.](#)
25. [Drinker, Cecil Kent, 1887-1956. Papers, 1898-1957.](#)
26. [Finland, Maxwell. Papers, 1916-2003.](#)
27. [Guttmacher, Alan, 1898-. Papers, 1860s, 1898-1974.](#)
28. [Kass, Edward H. \(Edward Harold\), 1917-. Papers, 1908-1990.](#)
29. [Porter, William Townsend, 1862-1949. Papers.](#)
30. [Richardson, Edward Peirson, 1881-1944. Papers, 1851-1955, undated.](#)
31. [Richardson, Maurice Howe, 1851-1912. Papers, 1869-1913.](#)
32. [Stone, Abraham, 1890-. Personal and Professional Papers, 1916-1959.](#)