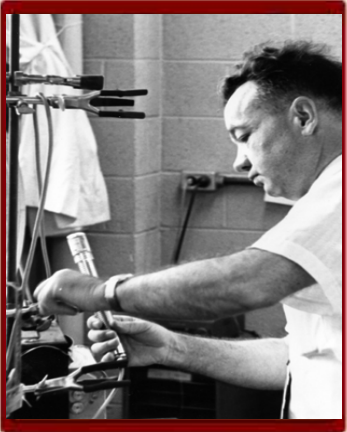




# Using Greenstone Open-Source Digital Library Software at a Cultural Heritage Institution



Mary Manning  
Eric Schnell



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# William G. Myers



**William G. Myers** was a pioneer in the field of nuclear medicine, has been called the "godfather of the cyclotron"



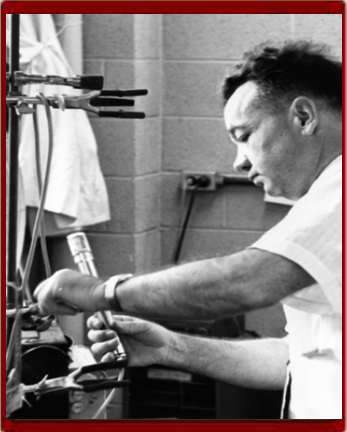
His contributions include the development of radioactive gold seeds for interstitial therapy and the introduction of 11 radioisotopes for use in nuclear medicine



# Project Goal



Exhibits and other public programs will enhance the awareness of the collection's availability for research



The Myers virtual exhibit and a new MHC digital library with the Myers Collection serving as the pilot collection



# Online Collection



- Photographs of and correspondence between Myers and other founders of nuclear medicine
- Correspondence from Myers to his wife describing his experience as a radiation monitor during Operation Crossroads
- Unique photographs of early and experimental nuclear equipment, including early scintillation cameras and cyclotrons

# Project Team



- Mary Manning (project lead)
- Eric Schnell (technology lead)
- Eric Hamrick (programmer)
- Chris Finneran (graphics)
- Judith Wiener (MHC curator)
- Jason Crabill (metadata)

# What is Greenstone?



- A suite of software for building and distributing digital library collections
- Organizes information and publishes it on the Internet or on disc
- Developed by the New Zealand Digital Library Project at the University of Waikato
- It is open-source software, available from <http://greenstone.org> under the terms of the GNU General Public License

# What is open source?



- Not proprietary
- Code is open for everyone is see and can be changed--customizable
- Use is subject to GNU general public license

# GNU General Public License (GPL)



- You can use it freely, but if you distribute it you must give others the right to redistribute the code
- The intent of GPL is to prevent a situation in which companies take an open-source code and resell it with limitations on the use and further distribution

(*Understanding Digital Libraries: Second Edition*, Morgan Kaufmann, 2005 )



# Searching



- keyword
- title
- author
- subject
- format
- collection (future)

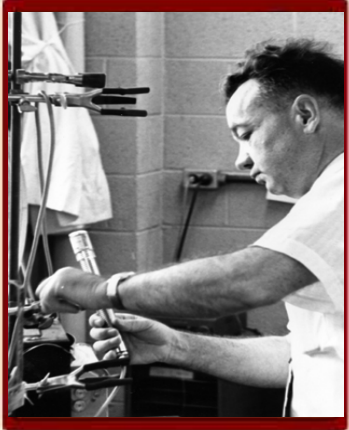
# Technical Requirements



- Runs Linux, Mac OS X or Windows web servers
- Must have the Java run-time installed
- Greenstone Librarian Interface (GLI) client installed on collection management workstations

# Technical Skills

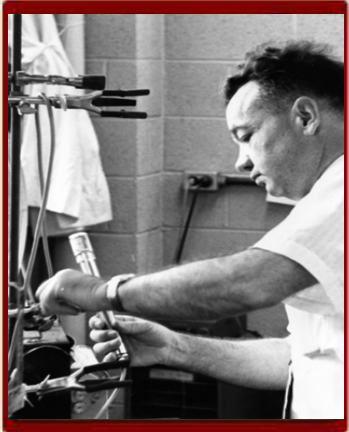
- HTML
- Text file editing



# Why a virtual exhibit and a digital library?



- A virtual exhibit provides context
- The digital library is searchable



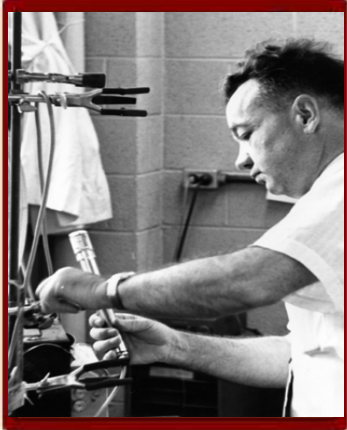
# The Digital Library Entry Page



- On the same server as the MHC website (a different server than the DL)
- An html webpage and part of the new MHC website, this will allow for easier customization of the entry page
- Provides information on the MHC, the DL project, and will provide links to virtual exhibits with material on DL
- Based on template for MHC site

# Why did we choose Greenstone?

- Cost, “free”?
- Compatible with Knowledge Bank
- 2 listservs for technical assistance: one for users one for developers



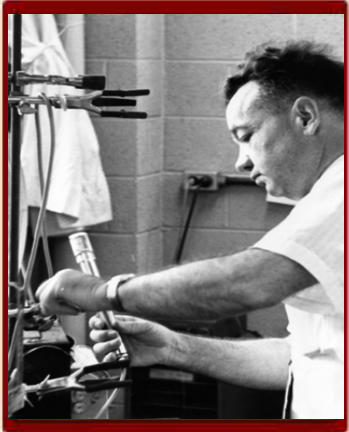
# Why did we choose Greenstone?



- Can be used with many types of metadata. Dublin Core (qualified and unqualified), RFC 1807, NZGLS (New Zealand Government Locator Service), and AGLS (Australian Government Locator Service) are predefined while new metadata sets can be defined using Greenstone's Metadata Set Editor.
- "Plug-ins" are used to ingest externally-prepared metadata in different forms, and plug-ins exist for XML, MARC, CDS/ISIS, ProCite, BibTex, Refer, OAI, DSpace, METS

# Metadata Choices

- Qualified Dublin Core
- Fields are defined by qualifiers



# Standards



- Based on standards found on a number of different websites, from workshops, Ohio Memory Project, Worthington Memory Project, and OSU
- Flexible, to allow use of past images in a lower resolution (300dpi) while new images are scanned at 600dpi, to prevent rescanning in the future

# Preservation

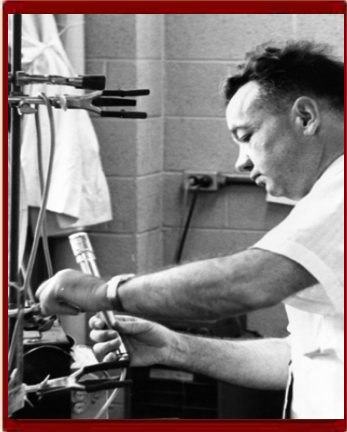


- TIFFs and JPEGs of each item. TIFFs are unchanged and are now scanned at 600pi
- One copy on server. One on Knowledge Bank



# Dublin Core XML Generator

- We are using a web form we created instead of entering directly to the “enrich” page of the GSDL librarian interface



# Dublin Core XML Generator

Information on Qualified Dublincore fields can be located at <http://www.dublincore.org/documents/2000/07/11/dcmes-qualifiers>

## Dublin Core Field Data

Select Collection

Select Folder

Select Image/Document:

Title:

Alternative Title:

Creator:

Use LOC name authority file <http://authorities.loc.gov/>

Add names not found in LOC to homegrown authority file

Subject 1:

Subject 2:

Subject 3:

Subject 4:

Subject 5:

Subject 6:

**Subject 5:**

**Subject 6:**

For subject Use TGM primarily <http://www.loc.gov/lexico/servlet/lexico?usr=pub-8:0&op=frames&db=TGM> |

For books use LCSH (if book has already been catalogued use those terms)

Mesh for more difficult medical terminology or artifacts <http://www.nlm.nih.gov/mesh/meshhome.html>

**Description:**

**Table of Contents:**

**Abstract:**

**Publisher:**

**Contributor:**

**Date:**

**Date:**

**Date Created:**

**Date Issued:**

**Date Modified:**

For all date fields use W3C-DTF which is based on ISO 8601 (YYYY-MM, YYYY-MM-DD, etc) <http://www.w3.org/TR/NOTE-datetime>

Or use DCMI period to specify the limits of a time interval <http://www.dublincore.org/documents/dcmi-period/>

**Type:**

For type use [http://www.loc.gov/lexico/servlet/lexico?usr=pub&op=sessioncheck&db=TGM\\_II](http://www.loc.gov/lexico/servlet/lexico?usr=pub&op=sessioncheck&db=TGM_II)

**Format:**

**Format Extent:**

**Format Medium:**

**Identifier:**

**Source:**

**Source Date:**

For source date use W3C-DTF which is based on ISO 8601 (YYYY-MM, YYYY-MM-DD, etc) <http://www.w3.org/TR/NOTE-datetime>

Source Date:

For source date use W3C-DTF which is based on ISO 8601 (YYYY-MM, YYYY-MM-DD, etc) <http://www.w3.org/TR/NOTE-datetime>

Language:

Use language use ISO 639-2 (English is eng) <http://www.loc.gov/standards/iso639-2/langcodes.html>

Relation:

Is Version Of:

Has Version:

Is Replaced By:

Replaces:

Is Required By:

Requires:

Is Part Of:

Has Part:

Is Referenced By:

References:

Is Format Of:

Has Format:

Coverage:

**Is Part Of:**

**Has Part:**

**Is Referenced By:**

**References:**

**Is Format Of:**

**Has Format:**

**Coverage:**

**Spatial:**

**Temporal:**

For Coverage Spatial use ISO 3166 for country names <http://www.iso.org/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/list-en1.html>

Use TGN for other geographic place names [http://www.getty.edu/research/conducting\\_research/vocabularies/tgn](http://www.getty.edu/research/conducting_research/vocabularies/tgn)

For Coverage Temporal use DCMI period to specify the limits of a time interval <http://www.dublincore.org/documents/dcmi-period/>

**Rights:**

```
All rights reside with the rights holder. All
permissions must be obtained from the appropriate
rights holder.
Preferred Citation:[Identification of item],
Manuscript collection number Spec.199801.Myers, John A.
Prior Health Sciences Library, Medical Heritage Center,
```

# Advantages of the Web Form



- Access to thesauri and other resources
- Allows one to reuse commonly used terms without re-typing
- Allows for permanent fields for copyright and other information





# Tour of the Myers Collection on the MHC DL

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[HOME](#) [HELP](#) [PREFERENCES](#)

## The Medical Heritage Center Digital Library

**about**

**search**

**titles a-z**

**authors a-z**

**subjects**

**formats**

Search for  that contain  of the words

Begin Search

### About this collection

The Medical Heritage Center (MHC) is the history of medicine collection at the John A. Prior Health Sciences Library. The MHC specializes in materials of prominent local health care providers and health-related organizations of Central Ohio. For more information visit the MHC website at <http://library.med.ohio-state.edu/2796.cfm>. Location: 5th floor, John A. Prior Sciences Library Phone: 614-292-9273 Email: [wiener.3@osu.edu](mailto:wiener.3@osu.edu)

### How to find information in the The Medical Heritage Center Digital Library collection

Prior Health Sciences Library. The MHC specializes in materials of prominent local health care providers and health-related organizations of Central Ohio. For more information visit the MHC website at <http://library.med.ohio-state.edu/2796.cfm>. Location: 5th floor, John A. Prior Sciences Library Phone: 614-292-9273 Email: [wiener.3@osu.edu](mailto:wiener.3@osu.edu)

## How to find information in the The Medical Heritage Center Digital Library collection

There are 5 ways to find information in this collection:

- ◆ search for particular words
- ◆ access publications by title
- ◆ access publications by author
- ◆ access publications by subject
- ◆ access publications by format

You can *search for particular words* that appear in the text from the "search" page. This is the first page that comes up when you begin, and can be reached from other pages by pressing the *search* button.

You can *access publications by title* by pressing the *titles a-z* button. This brings up a list of books in alphabetic order.

You can *access publications by author* by pressing the *authors a-z* button. This brings up a list of books, sorted by author name.

You can *access publications by subject* by pressing the *subjects* button. This brings up a list of subjects, represented by bookshelves.

You can *access publications by format* by pressing the *formats* button. This brings up a list of formats to browse.



HOME HELP PREFERENCES

The Medical Heritage Center Digital Library

search

search titles a-z authors a-z subjects formats

Search for All Fields that contain some of the words

- All Fields
Title
Subject and Keywords
Description
Creator
Format

Begin Search



HOME HELP PREFERENCES

# The Medical Heritage Center Digital Library

search

search titles a-z authors a-z subjects formats

Search for  that contain  of the words

## results

Word count: equipment: 51  
34 documents matched the query.



William G. Myers leaning on lab equipment, Nov. 1960



Michel Ter-Pogossian posing with unidentified equipment



HOME HELP PREFERENCES

search titles a-z authors a-z subjects formats

NEW WINDOW NO HIGH-LIGHTING



(Click on image to enlarge)

**Title:** Michel Ter-Pogossian posing with unidentified equipment

**Creator:** unknown

**Description:** Michel Ter-Pogossian posing with unidentified equipment at the Barnard Free Skin and Cancer Hospital, Washington University in St. Louis, MO, on May 1966. Doctor Ter-Pogossian was a physician and pioneer in the field of nuclear medicine.

**Publisher:** <http://mhc.med.ohio-state.edu>

**Resource:** Image. Photograph

**Identifier:** File name: 199801.Myers0077.jpeg, Location: 199801.Myers 2/5

**Coverage:** us

**Rights:** All rights reside with the rights holder. All permissions must be obtained from the appropriate rights holder. Preferred Citation: Manuscript collection number Spec. 199801.Myers, John A. Prior Health Sciences Library, Medical Heritage Center, The Ohio State University.











HOME HELP PREFERENCES

# The Medical Heritage Center Digital Library

**subjects**

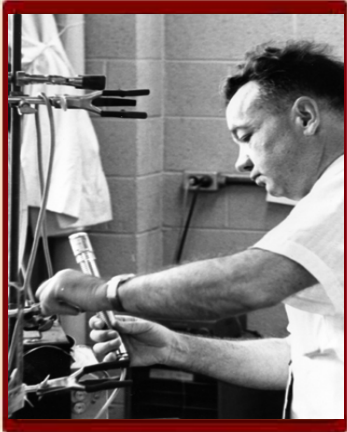
search titles a-z authors a-z **subjects** formats

A-H I-O P-Y

-  Aebersold, Florence (2)
-  Aebersold, Paul C. (Paul Clarence), 1910-1967 (4)
-  Anger cameras (2)
-  Anger, Hal, 1920-2005 (8)
-  Awards (8)
-  Baby picture (1)
-  Bohr, Niels Henrik David, 1885-1962 (1)
-  Brachytherapy (1)
-  Bucknell University (1)
-  Cancer therapies (1)
-  Chemists (5)
-  Cyclotrons (1)
-  Chelation, Mercury, St. Louis (2)

# Still left to do...

- We have been concentrating on images but we want to include other resources
- Three dimensional objects
- Articles with OCR
- Handwritten letters with transcription



# Thank You!



## Questions?

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