



Digital Collection Repository Proposal

Final Paper

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Executive Summary

The Ogdensburg Art Library is pleased to have recently accessioned the *Bell Modern and Contemporary Art Collection*. In order to promote access to and scholarship of this incredible collection, the library has outlined a proposal to adopt a digital repository software in which each item of the collection will have its own digital record accessible to users.

The library will implement Simplified Dublin Core as a metadata schema for this and future projects. Simplified Dublin Core contains 15 elements that allows staff to add metadata to each digital record. The most crucial Dublin Core (DC) elements that will be used in our repository's framework include: creator, date, title, subject, type, description, identifier, publisher, language, coverage, and rights. Though it is possible each record will contain varying metadata elements dependent on available information, we will strive to at least include the previous elements mentioned.

The library has chosen to use Greenstone Digital Library Software as its digital collection repository. This software utilizes DC metadata in order to make a complete digital record for each item in the collection. Greenstone is quite extensible and can be customized based on our needs. This software is free to download and there are many tutorials online for learning the software. Education is crucial at the onset of adoption since I, the Head of Cataloging and Metadata, will be working with the Systems Librarian to introduce the software to other staff members of the library and our larger community of patrons.

Controlled vocabulary will be used as the main source of metadata. Relevant vocabularies that will be consulted include The Getty's Art and Architecture Thesaurus, the Union List of Artist Names, Library of Congress Subject Headings, Library of Congress Name Authority File, and the Cultural Objects Name Authority. It may be necessary to create localized terms in order to classify archival material created exclusively by the library. If any localized terms are used, there will be a list included on a resources page within the digital repository's interface.

Interoperability and quality are two of the most important aspects of this project. The library does not operate in a vacuum and its mission is to serve the users. In this sense, it is important to utilize accepted controlled vocabularies from the field. To ensure that metadata is interoperable, it must be checked for accuracy, consistency, and completeness. This will aid the library to collaborate with other institutions in the future by sharing universally compatible metadata records of our materials. Once the digital repository is running successfully, the ultimate goal is federated searching so that the digital records of the library are available to users outside of the collection.

The project is primarily staffed by the Head of Cataloging and Metadata, with help from the Systems Librarian, student workers, and the institution's curator. At the conclusion of the project, a survey will be sent to staff and users to gauge the effectiveness of the digital repository. Findings, along with tutorials and related information, will be posted on a webpage within the digital repository's interface to promote transparency and growth within the cultural heritage community. Quality checks will be completed for each record to ensure accuracy. The budget for this project is \$15,000 and we are on target to spend the allocated amount.

Introduction

As the Head of Cataloging and Metadata, I am proposing a digital project for the institution so that our collections can be accessible online to users around the world. This proposal has been developed as the Ogdensburg Art Library continues to receive more prominent collections. In the remainder of this proposal, I will suggest solutions for a software framework and metadata schema implementation for a digital repository. By having this digital repository, the library will be able to support digital exhibitions and post extensive finding aids detailing its holdings. Though some items are under copyright and cannot be digitized, a record will be made for each item in the *Bell Modern and Contemporary Art Collection* to promote access. Please see Table 1 for a breakdown of items in this collection. This collection will be used as a pilot for the library in order to gauge the effectiveness of having collections accessible online. The goal of this project is to create a digital repository that reaches each of the current 3,000 patrons, but promotes growth within the library's user community. Each item will have a record and each record will contain metadata to aid in discovery, as well as a digital surrogate or copy of the material when appropriate. Controlled vocabulary will be used considerably to promote greatest access, along with interoperability of metadata. Staffing solutions will be discussed and a breakdown of the budget for this project is also included in this proposal.

Table 1: Collection summary	
Collection Name: Bell Modern and Contemporary Art Collection Repository Name: Ogdensburg Art Library	
Contents and backlog:	Growth rate:
25 artist catalogue raisonnés	to grow by 2 yearly
25 exhibition catalogs	to grow by 10 yearly
Several collections of personal papers	
Robert Rauschenberg (52 papers)	no more to be added
Caroline Woolard (23 papers)	to grow as produced by artist
Occupy Museums (36 papers)	to grow as produced by artist
A donation of works on paper from a well-known artist	
Lygia Pape (3 pieces)	to grow by 1 piece every two years until year 2025
There is an annual event to highlight recent acquisitions, but the papers and posters from the event are not retained. The director thinks there is an opportunity for the library to host the outstanding papers, as well as video and images from the event.	
Backlog of 5 events (15 time lapse videos, 500 digital photographs, 25 printed posters, and 10 event brochures)	To grow by 3 videos (time lapse), 100 digital photographs, 5 printed posters, and 2 event brochures yearly
The library hosts an annual student art exhibition, and the director wants the repository to highlight selected images from the exhibit.	
Backlog of 2 events (200 digital images)	To grow by 100 digital images yearly

Metadata Schema for Repository

The metadata schema that will be used for the library's digital records is Dublin Core. The decision to use Dublin Core is based on a few factors, but primarily the fact that this schema was used successfully by other libraries for their digital projects, as well as its compatibility with Greenstone, the software that will be used as a digital repository for material in this collection.

The controlled vocabularies that will be used to identify subjects in this collection are chiefly the Getty's Art and Architecture Thesaurus (AAT), The Cultural Objects Name Authority (CONA), The Union List of Artist Names (ULAN), and The Getty Thesaurus of Geographic Names (TGN). Other controlled vocabularies that could provide greater access to the collection include Library of Congress Subject Headings (LCSH) and the Library of Congress Name Authority File (LCNAF). All of these vocabularies are supported with the Dublin Core coding structure. These keywords can be added to the subject field of Dublin Core metadata to aid in discovery and classification of the work. Since new elements or qualifiers can be added to the Dublin Core schema, the selected vocabularies can be inputted into records that need to include more classification than is available in the subject field. This will need to be noted in an external database file, such as Excel, for recordkeeping purposes so that library administration can review any records quickly that may not have interoperability due to the unqualified elements added.

Due to the ability to add additional qualifiers to a Dublin Core record, the metadata schema is built for extensibility and should be compatible for future digital projects. This simple, yet diverse, schema will aid in the coding of various media formats in the collection such as books, digital videos, digital photos, works on paper, pamphlets, and posters. Greenstone is quite customizable so the software meets the requirement for an extensible system. From a 2006 article titled *Building Digital Collections Using Greenstone Digital Library Software* written by Zhang, Gourley, and Cox:

“Greenstone was selected because it met most of our presentation requirements and was designed in an open, extensible manner so we could easily adapt it for our current and future environments. The collections can be built individually and each collection can have unique indexes and display labels. The browsing and searching functions in Greenstone are very powerful and perform well for collections of all sizes” (74).

This article also cites the following Dublin Core elements that are mandatory to use for each record to ensure “cross-collection searching and browsing”: identifier, title, subject, type, repository, and collection name.

Dublin Core can be easily implemented into the library's repository architecture. For instance, artist catalog raisonnés and exhibition catalogs may already have an existing MARC record containing bibliographic data. The Library of Congress' *MARC to Dublin Core Crosswalk*, issued in 2008, can be used to transfer the data to a Dublin Core record for use in the Greenstone system. Since there may be some loss of data when going from MARC to Dublin Core, it is advised that any additional qualifiers be added to the Dublin Core record to make up for the loss of important bibliographic information. Dublin Core is easily accessible and is able to be read by humans due to its simple nature, whereas MARC is a machine-readable format. There are 15 core elements in Dublin Core, so the list of elements is not overwhelming to newcomers. Many guides are available online, including a Dublin Core Generator to build code, which will aid in

teaching existing staff and volunteers how to create the metadata. Since the Systems Librarian is very busy, the simplicity of Dublin Core will aid in the success of creating this digital collection using the Greenstone repository by allowing other employees to add metadata to records.

Since Dublin Core will be used, it will also be easy to extract data points to share with other donors or libraries for collaboration and discovery. It is a standard that is accepted by W3C—the World Wide Web Consortium, providing an extra level of recognition in the metadata community. Dublin Core is one of the simplest metadata formats available, so the content encoded in this schema will not be lost if a crosswalk is used by other libraries to transfer our data into MODS or MARC records. Please see Appendix A at the conclusion of this paper for a sample Dublin Core record for one of the catalog raisonnés in our collection, *Robert Motherwell Paintings and Collages: A Catalogue Raisonné, 1941-1991*, as well as a sample DC record for one of Lygia Pape's works on paper.

Software and Framework

The library's adoption of Greenstone Digital Library Software means that the institution will enable its collections to be available on one of the premier open-source digital repository softwares available. Greenstone is produced and maintained by the New Zealand Digital Library Project at the University of Waikato and is "distributed in cooperation with UNESCO [United Nations Educational, Scientific and Cultural Organization] and the Human Info NGO" according to its website. Greenstone's main goal is one of the diverse factors which lead us to adopt this software: "We hope this software will encourage the effective deployment of digital libraries to share information and place it in the public domain." This is relevant to the Ogdensburg Art Library's overall mission of providing unfettered access to cultural heritage material in the arts.

As noted earlier, the Greenstone website contains a plethora of tutorials and support documents to learn how to implement the software. This was another contributing factor in deciding which digital repository software to utilize. Of particular interest is Greenstone's ability to build digital collections such as simple image collections and image collections with GPS metadata. GPS metadata will be another component that we hope to adopt at the library in the future with this software so we can place the holdings of our collections into an interactive map, adding another layer of discoverability and accessibility for users.

It is important for the library to adopt a digital library software that allows the addition of multimedia collections. As is evident in Table 1, there are varied media formats in our pilot digital collection. Greenstone allows staff to manually correct metadata, allows users to browse by media type, and even displays different icons for various media types. Best of all, this is a well-established system that is free to use and customize with many supporting documents to promote success within the institution.

Controlled Vocabulary and Authority Control

Since the items in the *Bell Modern and Contemporary Art Collection* are cultural heritage material, the library will primarily be using vocabularies developed by The Getty Research Institute. The vocabularies include: The Art & Architecture Thesaurus (AAT), The Getty Thesaurus of Geographic Names (TGN), The Cultural Objects Name Authority (CONA), and The Union List of Artist Names (ULAN). It will be necessary to consult CONA in order to properly encode the data for the works on paper created by Lygia Pape. ULAN will be consulted in order to add “contributor” data for each catalogue raisonné and exhibition catalog. AAT will be consulted for general research of the cultural heritage objects in the library for this project. TGN could be useful when including specific information related to an artist, an exhibition location, or data regarding the library’s location (as in the instance of the library’s annual events and exhibitions).

It may be necessary to consult and include controlled vocabularies from the Library of Congress for each catalogue raisonné and exhibition catalog. Library of Congress Subject Headings (LCSH) and Name Authority File (LCNAF) as well as the Library of Congress Code List for Cultural Heritage Organizations could prove useful when encoding data related to exhibition catalogs and the exhibition’s locations.

It will be necessary to make our own keyword scheme for items not identifiable by the noted controlled vocabularies. These items include those that have been created by the library including digital images, time lapse videos, brochures, and posters. The artists will not be found in ULAN or LCNAF since they are students who do not have a developed career. While general keywords from LCSH or AAT can be added to the posters, brochures, digital images, and time lapse video records, it may be necessary to make up some keywords local to the library to use the data more efficiently. Similar keywording tactics will need to occur to describe the events that these items belong to (student art exhibition, recent acquisitions event). The library will not be using data tagged by users, such as social tagging.

The primary types of objects that will be documented for this collection include books, artwork, personal papers, digital images, digital videos, and ephemera (posters, event brochures). The entities include persons (student artists, famous artists) and places (locations of exhibits, location of published books), as well as medium (donated works, works created at the library). The attributes include activity, dimension, language, copyright status, and related dates.

In using a controlled vocabulary, we will need to search ULAN for each artist included in the collection. These include Robert Rauschenberg, Caroline Woolard, and Lygia Pape. It will be necessary to decide how to code “Occupy Museums” as this is not quite a cultural organization that will have a code given by the Library of Congress or a name in AAT or ULAN. Access to controlled vocabularies by The Getty Research Institute are free and usable to the public. Similarly, I will be able to search Library of Congress’ LCSH and LCNAF to encode data for this collection.

While all the objects in this collection can be considered visual materials, it is necessary to differentiate between the text and truly visual items (images, works on paper). In order to

accommodate both images and text various vocabularies will need to be used. Each catalog raisonné has an author, as do the exhibition catalogs, but will need to include a contributor to ensure that information regarding the actual artist of the book's subject is included. The creator of any images or artwork will be considered the same as an author, but be called a creator. Though there is a change in vocabulary, it will need to be noted what the exact relationship is: author is the creator of the book while contributor is the subject of the book (catalog raisonné or exhibition catalog), creator is the one who made the artwork but can be considered the author. There are objects in the collection that may need to include a specific data point, while others won't require it. Language will need to be included for textual material—the personal papers, brochures, and books—but may not need to be included for the artwork. CONA will need to be used when identifying artworks, but won't be necessary for textual items.

Interoperability and Quality Analysis

The core purpose of interoperability is to have an institution's records be understood by users in a consistent manner. This could mean that the user knows precisely how the data maps to a Dublin Core record, or even that the record's data can be easily manipulated by another institution for a consortium project with little loss of data in each record. For the *Bell Modern and Contemporary Art Collection*, as well as future collections, any local metadata terms must be clearly denoted so that users understand they are locally derived terms. This could mean that the terms aren't hyperlinked in records like controlled vocabulary may be, as in leading to a page where all records containing that specific term are linked to promote discoverability of items. In order to promote understanding of each item's record, it would be beneficial to include a crosswalk and table with complete mapping of elements if typical Dublin Core elements are not used to describe the data. If the institution chooses to use the term "artist" instead of "creator" then that should be specified somewhere on the institution's digital collection website to promote transparency and understanding to users who wish to map terms to the correct Dublin Core elements.

Another issue revolves around quality of the metadata record. Since the library will be using Dublin Core with a mixture of controlled vocabulary and localized terms, it is crucial that the controlled vocabulary terms are correctly derived and typed precisely into the record. It will be unacceptable to have the term "Robert Motherwell" when The Getty's Union List of Artist Names (ULAN) classifies this artist as "Motherwell, Robert." The format of this name is consistent with the Library of Congress Name Authority File (LCNAF). For this purpose, it will be necessary to format all creator names in this way to promote consistency, even if they do not exist in a universal format in ULAN or LCNAF. If all data elements will not be filled, then this should also be noted on the website for users to understand. Not all information will be readily available for each item in the collection. For instance, some items may not have data to include in the "relation" or "language" fields.

By ensuring that the method for metadata creation is clearly discussed and terms are added in a consistent manner, the records will promote full interoperability. Before any metadata will be added to the records, a list of controlled vocabulary terms will be made to choose from for each record. If missing data is an issue, then this will be denoted by an empty field in the record so

that users know it is not readily available. If mapping or a crosswalk is used, this will be noted on the website for users to access if they want to transfer the data to a Dublin Core record. The institution will readily accept any corrections if users find mistakes in records while researching. Finally, a sample of records will be chosen at random to be used as a quality check to see if mapping to various metadata schemas is possible and to analyze which data will be at risk for loss.

Staffing and Assessment of Project

As the Head of Cataloging and Metadata at the Ogdensburg Art Library, I will be spearheading and doing most of the day-to-day work of this metadata and digital library project. Though my annual salary is roughly \$45,000 (with an hourly rate estimated at \$21/hour in a 40-hour work week), I anticipate that I will need to spend at least four hours a day on this project in the beginning of its creation and then less time (about one-two hours per day) as the project is implemented and all staff are trained. At the onset of this project, I anticipate that I will be spending all of my time learning about the Greenstone Digital Library software, developing workflows, quality control for individual assets, and communicating the needs of the project. For this reason, for the first month of inception of this project all 40 hours of my work week will be spent on project development for a total salary of \$3,360/month ($\$21/\text{hour} \times 40 \text{ hours} = \$840/\text{week}$, $\$840/\text{week} \times 4 \text{ weeks} = \$3,360/\text{month}$). Since all 40 hours that I work each subsequent week will not be entirely devoted to this project, I expect that \$3,360 of my salary will be allotted to work on this project for the next two months after its initial implementation ($\$21/\text{hour} \times 4 \text{ hours} = \$84/\text{day}$, $\$84/\text{day} \times 5 \text{ days} = \$420/\text{week}$, $\$420/\text{week} \times 4 \text{ weeks} = \$1,680/\text{month}$, $\$1,680/\text{month} \times 2 \text{ months} = \$3,360$). As time goes on and the project is successfully implemented, I expect that my salary going toward this project will be roughly \$840/month ($\$21/\text{hour} \times 2 \text{ hours} = \$42/\text{day}$, $\$42/\text{day} \times 5 \text{ days} = \$210/\text{week}$, $\$210/\text{week} \times 4 \text{ weeks} = \$840/\text{month}$).

The Systems Librarian will be helping me to understand system implementation of the Greenstone Digital Library software, but will only be helping on a short-term basis. I expect that the Systems Librarian makes roughly \$55,000 annually, with an hourly rate of \$26. If the Systems Librarian aids in the implementation of the new software at a very basic level, I anticipate she will be available for one hour each day, or five hours a week, for two non-consecutive months. In this sense, she will be able to assist with any questions prior to the implementation of Greenstone, as well as be available for any troubleshooting that may occur once the program has been implemented. With these hourly projections, the Systems Librarian's salary from this project will total \$1,040 ($\$26/\text{hour} \times 5 \text{ hours} = \$130/\text{week}$, $\$130/\text{week} \times 4 \text{ weeks} = \$520/\text{month}$, $\$520/\text{month} \times 2 \text{ months} = \$1,040$).

I will be enlisting the help of the library's curator to aid me in making a list of localized controlled vocabulary metadata terms for the student workers to use. The curator will help me in finding the correct terms to add to each item in the Bell Modern and Contemporary Art Collection based on existing controlled vocabularies, along with those that may aid in the best discovery of our materials with user searchers. The curator at our library is a part-time employee and makes roughly \$15,000 annually. The curator will be spending all her time for one week to help identify useful metadata terms, identify descriptions for the material, and give general

support for the material. This is a total salary expectation of \$285 ($\$15/\text{hour} \times 19 \text{ hours week} = \$285/\text{week}$)

Along with my own work, there will be two student workers who will be helping with the implementation of this project. Their tasks will include inserting metadata into the records of each of the items contained in the collection. These metadata terms will be created via controlled vocabularies, so there is a quality control effort built into the student worker's workflow. There will be a localized controlled vocabulary created for the students to pick metadata terms to insert into items that are not publicly cataloged already (artist names, art movements) or widely recognized by the larger community including event photography, and marketing materials created by the library. The student workers will each work 10 hours/week at a rate of \$12/hour ($\$12/\text{hour} \times 10 \text{ hours} = \$120/\text{week}$). I anticipate that the student workers will work on a 15-week, semester-long basis, so each student will be allotted a total salary of \$1,800 ($\$120/\text{week} \times 15 \text{ weeks} = \$1,800$).

Since it is expected that the time of employees will be compensated through the funding of this project (\$15,000 total), please see Table 2 below for a summary of salary expectations for the completion of this digital library project. At the rate of \$840/month for my salary after initial implementation, it is expected that the budget will allow for my salary to continue working on the project for three months after the first four months of implementation. I anticipate needing to spend less and less time on this project once it is implemented and developed, so it is possible that my salary will decrease further than \$840/month, allowing me to continue maintenance on the project and Greenstone system.

Table 2: Salary expectations	
Job title:	Total expected salary:
Head of Cataloging and Metadata	Month 1: \$3,360 Months 2 and 3: \$3,360 Month 4 and after: \$840 each
Systems Librarian	Month 1 and 2: \$1,040
Student Workers (2)	\$1,800 each per semester ($\$1,800 \times 2 = \$3,600$)
Curator	\$285 for one week
Total:	\$12,485 + cost of Head of Cataloging and Metadata for Month 4 and after

Training Plan and Workflow Analysis

The Head of Cataloging and Metadata will hold all responsibility for understanding and developing training materials for the Greenstone Digital Library system. There are many tutorials available on the Greenstone website, so it will be up to me to decide what is the best method to teach others how to insert metadata into each object's digital record. At the onset of this project I will work with the Systems Librarian to develop the Greenstone system and to find the best way to train others. I will work with the curator of the library who will help me identify the metadata terms that will best fit with the materials in the collection. These terms will be identified from existing controlled vocabularies such as Library of Congress Subject Headings, The Getty's Art and Architecture Thesaurus, and The Union List of Artist Names, among others.

The curator will also help me to identify terms in order to create a list of localized controlled vocabulary to use when applying metadata to materials that are created by the library. Student workers will consult the training materials and follow a documented step-by-step workflow that is created by the Head of Cataloging and Metadata, so that the process in applying metadata is nearly foolproof. At the end of each week I will review the metadata that has been inserted by students to ensure that it is correct and that baseline measures have been met. Since adding metadata terms can sometimes be an endless task, we will create a baseline guide to ensure quality control so that each work has at least an accepted creator name, art movement, and at least five supporting terms added to each piece. This will help with discoverability if the item isn't digitized and only exists in an online finding aid or object record.

Once successful implementation has occurred, as the Head of Cataloging and Metadata, I will monitor the system and add any new records that need to be inserted into the system. I will also spend time performing quality checks on records to ensure that metadata is accurate. Quality checks will be most important when analyzing data inserted by student workers to ensure accuracy. I will send out a short survey to everyone who works in the library asking them to utilize the digital library software (Greenstone) and gain their feedback. Measures will include how easy it is to find an object based on search terms (metadata), quality of results, and ease of navigating the interface. I will send a different survey to those who worked closely on the project to gain their feedback with the training materials and suggestions for future digital projects. Once feedback has been collected, a report will be written with survey results, suggestions on how to revise the object records, and how to create success going forward. The report will include a detailed look at staffing of the project, training materials, and survey results. The full report will be posted in a separate information section of the digital library software's online interface so it is available to others who wish to manage their own similar project. Please see Table 3, below, for a timeline of events for the implementation of this project.

Table 3: Timeline of project	
	Tasks
Month 1	Head of Cataloging and Metadata will utilize Greenstone software tutorials to develop a training plan and workflow. She will also work with Curator for 1 week to define controlled vocabulary metadata terms and create a list of localized vocabulary terms. Object records will be added to Greenstone Digital Library software for Bell Modern and Contemporary Art Collection. Systems Librarian aids in the implementation of Greenstone.
Month 2	Student workers begin work on backlog of materials as per Table 1. They will begin adding metadata to each object record. Systems Librarian aids in troubleshooting of issues with metadata insertion. Head of Cataloging and Metadata performs quality check of metadata inserted by student workers, building tutorials and re-training as necessary.
Month 3	Head of Cataloging and Metadata continues to check accuracy of metadata being added to each object record. There is a total of roughly 900 items to be cataloged in this collection, with the bulk of the items being material created by the library for institutional events (time lapse videos, digital images, marketing materials).

Month 4	Surveys sent out to library staff and Digital Projects staff regarding the success of the project.
Month 5	Report is compiled and published online with survey results, training manuals developed for this project, and recommendations.
Month 6 and after	Head of Cataloging and Metadata maintains Greenstone Digital Library software and object records as needed. As the collections grows, new records are created and metadata is inserted into each record based on staffing availability.

Conclusion

The implementation of a new digital repository system can seem daunting, but with the allocated budget of \$15,000, the leadership of the Head of Cataloging and Metadata, and the aid of other staff members at the Ogdensburg Art library, we believe that we will be able to promote greater accessibility to our collections starting with the *Bell Modern and Contemporary Art Collection*. By adopting Dublin Core as the standard metadata schema, we will ensure that our records are readable and that data is essentially lossless when transferred to other schemas or systems. This decision allows the largest number of employees to become acquainted with a recognized metadata schema as it is the simplest and most effective to utilize for foundational digital projects. Greenstone is a premier digital library software that is associated with UNESCO, proving its worth for use with cultural heritage collections. Use of controlled vocabularies will enable our digital records to be understood and utilized by users around world, promoting discovery and basic interoperability. Quality, accessibility, and interoperability are the most important aspects of this project, so it is crucial for each individual involved with the project to be dedicated, hard-working, and devoted to the mission of the library and its commitment to making collections even more accessible by adopting a digital repository.

References

- Atkins, Winston, et al. "Staffing for Effective Digital Preservation." *Digital Preservation*, Library of Congress - NDSA Standards and Practices Working Group, Dec. 2013, www.digitalpreservation.gov/documents/NDSA-Staffing-Survey-Report-Final122013.pdf.
- "Cataloging / Metadata Librarian Salary." *Cataloging / Metadata Librarian Salary*, PayScale, www.payscale.com/research/US/Job=Cataloging_%2F_Metadata_Librarian/Salary.
- Flam, Jack, et al. *Robert Motherwell Paintings and Collages: A Catalogue Raisonné, 1941-1991*. Yale Univ. Press, 2012.
- "Lygia Pape | Tecelar (1958)." *Artsy*, www.artsy.net/artwork/lygia-pape-tecelar-3.
- MARC to Dublin Core Crosswalk*. Library of Congress, 24 Apr. 2008, www.loc.gov/marc/marc2dc.html.
- "Salary: Systems Librarian." *Glassdoor*, www.glassdoor.com/Salaries/systems-librarian-salary-SRCH_KO0,17.htm.
- "Support." *Greenstone Digital Library Software*, New Zealand Digital Library Project, www.greenstone.org/support.
- Woodley, Mary S. "Digital Project Planning and Management Basics." April 2008. PowerPoint presentation. <http://www.loc.gov/catworkshop/courses/digitalprojplan/>
- Zhang, A. B., et al. "Building Digital Collections Using Greenstone Digital Library Software." *Internet Reference Services Quarterly*, vol. 11, no. 2, 2006, pp. 71–89.

Appendix A

Sample Dublin Core Record for *Robert Motherwell Paintings and Collages: A Catalogue Raisonné, 1941-1991*

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<dc:title>Robert Motherwell Paintings and Collages: A Catalogue
  Raïsonné, 1941-1991</dc:title>
<dc:creator>Flam, Jack</dc:creator>
<dc:creator>Rogers, Katy</dc:creator>
<dc:creator>Clifford, Tim</dc:creator>
<dc:subject xsi:type="dcterms:AAT">art history</dc:subject>
<dc:subject xsi:type="dcterms:AAT">monographs</dc:subject>
<dc:subject xsi:type="dcterms:AAT">Abstract
  Expressionist</dc:subject>
<dc:subject>Motherwell, Robert</dc:subject>
<dc:subject xsi:type="dcterms:LCSH">Abstract art</dc:subject>
<dc:subject xsi:type="dcterms:AAT">catalogues
  raisonnés</dc:subject>
<dc:description>Robert Motherwell (1915-1991) was one of the
  preeminent Abstract Expressionists and a spokesperson
  for that generation of artists. During a career that
  lasted half a century, he created a large and varied
  body of work, constantly reinventing and refining his
  signature motifs. He produced some of the most
  innovative and profound imagery of the 20th century,
  such as the Elegy to the Spanish Republic, Iberia, Open,
  and Summertime in Italy series, as well as one of the
  largest and most inventive oeuvres in
  collage.</dc:description>
<dc:publisher>Yale University Press</dc:publisher>
<dc:contributor>Motherwell, Robert</dc:contributor>
<dc:date>2012-11-13</dc:date>
<dc:type>Text</dc:type>
<dc:format>Hardcover</dc:format>
<dc:identifier>0300149158</dc:identifier>
<dc:language>en</dc:language>
<dc:coverage>1941-1991</dc:coverage>
<dc:repository>Ogdensburg Art Library</dc:repository>
<dc:collection>Bell Modern and Contemporary Art
  Collection</dc:collection>

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Sample Dublin Core Record for
Lygia Pape's *Tecelar*

```
<dc:title>Tecelar</dc:title>
<dc:creator>Pape, Lygia</dc:creator>
<dc:subject>woodcuts (prints)</dc:subject>
<dc:subject>Modern (style or period)</dc:subject>
<dc:subject>Contemporary (style of art)</dc:subject>
<dc:description>Woodcut print on Japanese paper</dc:description>
<dc:publisher>Galeria Luisa Strina </dc:publisher>
<dc:contributor>Artsy</dc:contributor>
<dc:date>1958</dc:date>
<dc:type>Image</dc:type>
<dc:format>works on paper</dc:format>
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