Sacred Jewels: Kate Abato's Chögyam Trungpa Rinpoche Collection

Digital Collections Project Plan
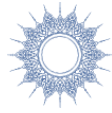
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Goals, Audience, Access & Scope of Collection

Sacred Jewels: Kate Abato's Chögyam Trungpa Rinpoche Collection will consist of a curated selection of original poems, calligraphies, photographs, and objects either created by or related to the late Tibetan Buddhist teacher, Chögyam Trungpa Rinpoche, who is credited with developing the Shambhala meditation tradition in the West (https://en.wikipedia.org/wiki/Ch%C3%B6gyam_Trungpa).

Ms. Abato was a student of Chögyam Trungpa Rinpoche in the early 1970's and later worked in his Ministry of External Affairs as well as alongside him to translate some of his poems from Tibetan to English. Ms. Abato has maintained custody over all items in the collection since she originally received them and is eager for them to be digitized in order to enhance their accessibility and ensure their preservation. Although Ms. Abato does not hold copyright over most items in the collection, in most cases she has the contact information of the individuals who do own the copyright.

The collection will be of interest to followers of Chögyam Trungpa Rinpoche (i.e. Shambhala practitioners) as well as anyone else wishing to learn more about this compelling historical character and his legacy. The collection will be accessible to the public through a CONTENTdm-hosted website and will be searchable via major search engines such as Google. The use of subject headings will provide users with various access points to digital objects in the collection, and the use of a qualified Dublin Core metadata schema supplemented with additional metadata fields will help contextualize each digital object and assist in the long-term preservation of the collection.
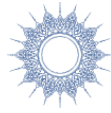
Selection of Materials

Selection Methodology

Our approach to selecting materials for digitization is grounded in *objective 12: to create meaningful opportunities for the community partner to be involved throughout the project decision-making process.* The selection of project materials requires considerable input from Ms. Abato and other stakeholders, and so, we have sought to adopt a selection methodology that is both accessible and pragmatic. Moreover, the context of our digital collection is somewhat unusual: we are a nimble team working with a small number of items and a single provenancial source, as opposed to an institution looking to evaluate thousands of materials. Recognizing the heterogeneity of circumstances around which digital collections are created, Jordan acknowledges that less detailed and structured criteria may be used for the selection of items for digitization (32).

Our selection methodology is thus modelled on the [NEDCC's guide to selection criteria](#), which outlines a flexible, open-ended inquiry process centered around three broad questions:
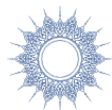1) *Should* the materials be digitized?
2) *May* the materials be digitized?
3) *Can* the materials be digitized?

The guide provides a number of clarifying questions and considerations to help institutional users work through the selection process in greater detail. However, our intent is to use them as the basis for conversation rather than as a checklist; while we have identified selection criteria, they are simply meant to support a discussion with our project partner and provide an informal framework for decision-making if there are difficulties in choosing items for digitization.

Selection Criteria
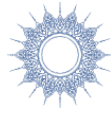
We are using the following criteria to guide our conversations with the community partner around the selection of items for digitization:[1]

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[1] Determining our selection criteria will be an iterative process. First, we drafted a set of criteria based on the questions from the NEDCC guide and validated them against other lists of criteria (Jordan, Vogt-O'Connor). Our next step is to ask our project partner for feedback and suggestions for other criteria that further captures her needs, and revise our criteria accordingly.

Inquiry Stage	Sample Considerations[2]
Should the materials be digitized? (Relates to the value and importance of the materials to the project partners as a justification for their efforts in digitizing them)	*Intrinsic Value* ● Are they important for the functioning of the institution to which they are related (i.e. Vancouver Shambhala Centre and Shambhala Archives)? ● Do they support current or new high-priority activities? Do they relate to areas poorly documented online? ● Are they aesthetically appealing? Will they display well on-screen? *Audience* ● Is there an active audience for the materials? ● Is current access to the original materials inadequate? If current demand is low, will digitization attract new viewers? ● Do the materials duplicate others which are available online (i.e. http://www.shambhalaarchives.org/)? *Affordances* ● Will digitization enhance the materials' content (by adding search functionality, etc.)?
May the materials be digitized? (Relates to the legal right of the project team to digitize and make the materials available online)	*Intellectual Property Rights* ● Does the institution have the legal right to make and disseminate digital copies? ● If not, can permission be obtained from the rights holders? *Privacy* ● Do the materials contain personal information that should not, or cannot, be legally disseminated? Do issues of religious, ethnic, or community sensitivity make public access to the materials problematic? ● Will everyone have free, open access to the resources or will restrictions be imposed?
Can the materials be digitized? (Relates to the technical capabilities required to capture, store and disseminate the materials online)	● Can they be captured with available equipment (e.g. items in frames, 3D objects)? ● Are they fragile or are at added risk of being damaged during the digitization process? ● What features of the original must be conveyed in the digital version?

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[2] Selection framework and questions adapted from NEDCC (Gertz, n.d.)

Project Objectives & Preliminary Milestones

Materials Inventory

10 unbound textual documents
1 bound volume (> 35 pages)
approx. 4 photographs
1 print (calligraphy)
1 object (porcelain cup)

> 50 items to be digitized

Objectives

1. Select 50 textual and graphic items to be digitized based on criteria identified in the evaluation and selection phase of the project.

2. Contact all copyright owners of materials to be digitized in order to secure the rights to each item. If the copyright owner of some items is unknown or unresponsive, make case-by-case decisions about whether these materials can be digitized by invoking fair dealing or orphan works sections of the *Copyright Act*.

3. Create 50 digital objects with 2 archival master files, 1 display/access file, and one thumbnail file for each one.

4. Perform image processing using Adobe Photoshop of all digital objects that require enhancement/restoration, synthesis, or other modifications.

5. Perform OCR processing using Adobe Acrobat Pro for all digitized textual documents.

6. Perform rich description of each digital object using a unique metadata schema that combines qualified Dublin Core and elements from other metadata schemas such as PREMIS.

7. Complete ingestion of each digital object into DB/Textworks and creation of user interface.

| 5
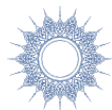
8. Create a web-accessible version of the digital collection, including subject access points, using CONTENTdm.

9. Create a long-term preservation strategy for the collection.

10. Transfer all archival quality master files and display/access files to Kate Abato, a member of Shambhala Vancouver, and a member of the Shambhala Archives (http://www.shambhalaarchives.org/) to ensure the long-term preservation of the collection.

In addition to the tangible objectives above, we also recognize the importance of setting objectives related to fostering a positive experience for our community partner. To that end, the remaining objectives are intended to help us facilitate a respectful and reciprocal relationship between ourselves and the community partner.

11. Create an evaluation plan and use it to measure desired outcomes on an ongoing basis.

12. Create meaningful opportunities for the community partner to be involved throughout the project decision-making process.

13. Develop written documentation that outlines expectations from both parties as well as protocols for handling conflicts that might arise during the project.

Project Milestones

Milestone	Date
Submit project plan	February 9
Complete preliminary selection of 50 items	February 17
Complete sample scans for 6 digital objects	March 2
Clear copyright for all items to be digitized, make decisions regarding fair dealing and orphan works exceptions, and keep written documentation of all rights-holders and permissions granted for use of materials	March 3
Complete at least 5 image operations for 4 digital objects and save results	March 16
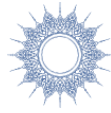
Complete unique metadata schema for digital collection and save in Microsoft Excel and DB/Textworks	March 10
Complete scanning, file creation (i.e. 2 archival masters, 1 display/access, 1 thumbnail), processing (i.e. Adobe Photoshop and OCR using Adobe Acrobat Pro), and metadata generation for 20 digital objects (cumulative total)	March 17
Complete scanning, file creation (i.e. 2 archival masters, 1 display/access, 1 thumbnail), processing (i.e. Adobe Photoshop and OCR using Adobe Acrobat Pro), and metadata generation for 35 digital objects (cumulative total)	March 24
Complete scanning, file creation (i.e. 2 archival masters, 1 display/access, 1 thumbnail), processing (i.e. Adobe Photoshop and OCR using Adobe Acrobat Pro), and metadata generation for 50 digital objects (cumulative total)	March 31
Use DB/Textworks to store the description and indexing of each image, implement digital collection, and create an appropriate user interface	April 6
Create a web-accessible version of the digital collection using CONTENTdm	April 6
Transfer all files for each digital object in the collection (i.e. archival masters, display/access files, and thumbnails) to Kate Abato or a member of the Shambhala Archives. Files will be transferred via fixed mediums (e.g. CD-R's, USB-sticks) and secure cloud storage providers	April 13
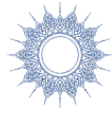
Technical Specifications

Metadata

The metadata schema for the digital collection will consist of a combination of elements derived from the Dublin Core Metadata Element Set (1995), DCMI Terms (2012), PREMIS Data Dictionary for Preservation Metadata (2015), and Data Dictionary - Technical Metadata for Digital Still Images (NISO Z39.87-2006). Combining elements from these standards will allow us to strike a balance between interoperability and rich item descriptions. For one thing, descriptive and administrative metadata elements from DCMI Terms and NISO Z39.87 will allow us to create item descriptions that include important contextual information related to provenance, rights, and non-digital source items. For another, technical and preservation metadata elements from PREMIS and NISO Z39.87 will provide us and future custodians with essential information with which to make decisions regarding the long-term preservation of the collection (Anderson et al., 2006). At the same time, it has been important for us to design a metadata schema that is interoperable in the event that other repositories wish to ingest the collection into their databases (e.g. Shambhala archives). The required elements in our metadata schema that are derived from the Dublin Core Metadata Element Set and NISO Z39.87 will ensure that the essential metadata for each item can be ingested into another content management system or OAI-harvested if desired (Jordan, 82-83). See Appendix A for a complete representation of the schema.

In a fundamental sense the metadata schema we have compiled is a draft. We expect to add and remove elements from the schema as our conversations with the community partner progress. This openness to changing the metadata schema as the project progresses is indicative of our commitment to collaborating with the community partner through all stages of the project. We aim for the collection to be user-centered and this philosophy will be reflected in the metadata schema.

Other key concerns and principles that have guided the development of our metadata schema include:
- *The one-to-one principle*. Wherever possible metadata elements must describe one entity only. If there is any ambiguity about whether a metadata element describes a digital item or its physical source item, this ambiguity will confuse users (Jordan, 56).
- *Repeatability*. Metadata elements should be repeatable. For example, we desired the ability to add more than one value for the 'rights' element for items that have both copyright and privacy restrictions attached to them. One of the reasons that we chose Dublin Core is because its elements are repeatable (Anderson, 75).

- *Controlled vocabularies*. As various authors advise, controlled vocabularies allow for standardization and interoperability, which can enhance access and preservation. Our metadata schema will incorporate various controlled vocabularies, including LCSH, TASI, and MIME (Anderson, 85-90).

Equipment

Hardware

- Flatbed scanners at SLAIS and I.K. Barber Music, Art, and Architecture Library
- Digital camera rental from SLAIS for digitizing 3-D objects
- External hard drives/flash drives and CD-R's for file transfers and backups

Software

- CONTENTdm on SLAIS computers for file ingesting and server uploading
- DB/TextWorks on SLAIS computers for file ingesting
- Adobe Photoshop on SLAIS computers for image processing
- Adobe Acrobat Pro on SLAIS computers for OCR processing
- MS Excel for metadata master file
- Dropbox for secondary file backups

Imaging standards

For our imaging standards, we referred to the "Technical Guidelines for Digitizing Cultural Heritage Materials" drafted by the Federal Agencies Digitization Guidelines Initiative (FADGI): 4-star level quality criteria for master files, and 2-star level for access files. Based on a preliminary selection of items in collaboration with the community partner, we have listed criteria based on the types of source materials in Appendix B.

Navigation & Search

To enhance the usability of the website, we will design multiple ways both to navigate the website and search the collection. In addition to the default image carousel in CONTENTdm, we will enable full-text search of documents and leverage descriptive metadata to offer entry points into the collection through topic areas and keyword searches. We will also create custom web pages in CONTENTdm with narrative content that incorporates items from the collection for additional context and exposure.

Web Accessibility

The collection website will aim to exceed WCAG 2.0 level AA standards.

Activities & Responsibilities

Project Stages
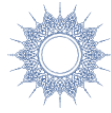
A high-level overview of the tasks involved throughout the various stages of the project, as well as a description of resources required, project team members responsible, and an anticipated start and end date for each stage:

Project stage	Required tasks	Project team[3]	Resources	Start/end
Establish community partnership	Contact community partner Discuss details of project and possible items for digitization Communicate roles and responsibilities	Sam, Devon	Email client, phone	Jan 23 - Feb 17
Build collection structure	Create file directory structure for project assets Create project file in content management systems (CMSes) Create metadata template in CMSes Create beta version of collections website	Devon, Sam	External hard drive DB/Textworks, CONTENTdm DB/Textworks, CONTENTdm CONTENTdm	Feb 13 - Feb 27

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[3] Team member with primary responsibility for completion of the stage is listed first.

Initial testing	Run preliminary test of workflows and revise as necessary Test beta version of collections website across multiple browsers and devices	Sam, Devon	Sample materials, scanner, Adobe Acrobat, Adobe PS	Feb 13 - Feb 27
Digitize source materials	Follow workflow [see Appendix C]	Devon, Sam	[see Appendix C]	Feb 24 - Mar 31
User testing	Conduct user testing on beta version of collections website with community partners Make revisions as necessary based on user testing feedback	Sam, Devon	Laptop, web browser	Mar 13 - Mar 20
Refinement and quality control	Enhance functionality of collection website (e.g. search, custom pages) Request interim feedback from community partners (~25 items) Make revisions as necessary based on partner feedback Review completed website for errors	Devon, Sam	CONTENTdm	Mar 20 - Apr 6

	Request feedback from community partners on final version of online collection Make revisions as necessary based on partner feedback			
Preservation	Identify a community partner custodian Export record information from DB/Textworks to text file for preservation folder Create metadata master file for preservation folder Create documentation for use of preservation files (readme file) Verify quality and completeness of preservation folder images and contents Transfer preservation folder to community partner custodian	Sam, Devon	DB/Textworks, Notepad MS Excel MS Word USB drive	Apr 6 - Apr 13

Estimated Budget

Digitization workflow tasks and average time to complete

Task	Estimated time required
Scan or photograph each item	10 minutes
Name archival master file according to naming convention and backup to preservation folder	10 minutes
Perform image processing and/or OCR processing to create production master file	20 minutes
Transfer production master file to DBTextworks/CONTENTdm and ensure creation of access file	10 minutes
Backup all new files to secondary storage	5 minutes
Create item metadata	20 minutes
Perform batch upload of 5 items to CONTENTdm server	15 minutes

Digitization cost estimates

Task	Estimated time required	Total time required to complete project	Estimated cost
Scan or photograph each item	10 minutes	0.17 hours/item x 50 items = 8.5 hours	$40.00/hour (including benefits) x 8.5 hours = $340.00
Name archival master file according to naming convention and backup to preservation folder	10 minutes	0.17 hours/item x 50 items = 8.5 hours	$40.00/hour (including benefits) x 8.5 hours = $340.00
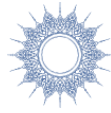
Perform image processing and/or OCR processing to create production master file	20 minutes	0.33 hours/item x 50 items = 16. 5 hours	$40.00/hour (including benefits) x 16.5 hours = $660.00
Transfer production master file to DBTextworks/ CONTENTdm and ensure creation of access file	10 minutes	0.17 hours/item x 50 items = 8.5 hours	$40.00/hour (including benefits) x 8.5 hours = $340.00
Backup all new files to secondary storage	5 minutes	0.0833 hours/item x 50 items = 4.17 hours	$40.00/hour (including benefits) x 4.17 hours = $166.80
Create item metadata	20 minutes	0.33 hours/item x 50 items = 16. 5 hours	$40.00/hour (including benefits) x 16.5 hours = $660.00
Perform batch upload of 5 items to CONTENTdm	15 minutes	0.25 hours/batch x 10 batches = 2.5 hours	$40.00/hour (including benefits) x 2.5 hours = $100.00
Total estimated time required to complete digitization tasks			65 hours
Total estimated cost required to complete digitization tasks			$2,606.80

Other cost estimates: project management, software & hardware

Role	Duties	Estimated time required	Estimated cost
Project management and quality control	Meet with community partner, contact copyright holders, document copyright permissions, test hardware and software, perform quality control of	40 hours	$40.00/hour (including benefits) x 40 hours = $1,600
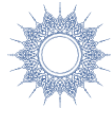
	digital objects, conduct user testing, develop preservation strategy		
CONTENTdm license	N/A	N/A	$1,000 CAD[4]
DB/TextWorks license	N/A	N/A	$1,000 CAD[5]
Adobe Photoshop license (for image processing)	N/A	N/A	$26.34 CAD/month x 12 months = $316.08[6]
Adobe Acrobat Professional license (for OCR processing)	N/A	N/A	$19.75 CAD/month x 12 months = $237
Epson Perfection V39 Flatbed Scanner - 4800 dpi optical	N/A	N/A	$125.00
Digital camera rental from Chapman Learning Commons or UBC IT	N/A	N/A	$25/hour x 2 hours = $50.00
Total estimated project management and hardware/software costs			$4,328.08

Total estimated project costs = $6,934.88

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[4] Value is a rough estimate because information on license costs is not available unless individuals or institutions request a quote.
[5] Same principle applies for DB/TextWorks license cost estimate.
[6] Adobe bills users monthly but requires an annual commitment.

Risk Management

The major factors we have identified as risks to the success of the project are:
1) the inability to get permission from copyright owners to use their works;
2) the culturally sensitive nature of the collection's source materials;
3) the limited availability of our community partners.

Copyright clearance

One of the most significant challenges to the success of the project is likely to be copyright clearance. None of the works which we have discussed digitizing are in the public domain; we will require permission from the copyright owners to make them available online. As most of the works have been created by Chögyam Trungpa Rinpoche, locating and seeking permission from copyright owners may be less onerous than for collections of materials in which the copyright owners are unknown. However, there is still the possibility that copyright holders will not respond to requests for permission or that contact information is out of date and so on.

Prevention measures: to prevent copyright clearance from becoming a barrier, we will focus on digitizing the works of one or a few creators rather than many and engage in the permissions process as soon as the works are selected for digitization.

Contingency plan: in the event that we are not able to get permission to digitize and display the works from a copyright owner, we will identify more than the required number of items so that we have alternatives if necessary. Otherwise, if the copyright owner only objects to having their images available online, we may consider restricting access to those items - though it would not be an optimal solution.

Culturally sensitive nature of materials

While Ms. Abato does not seem concerned about the collection being searchable via the World Wide Web, other followers of Chögyam Trungpa Rinpoche may be concerned about the public display of his works. We must therefore be attuned to possible concerns related to the culturally sensitive nature of items in the collection.

Prevention measures: We will work with Ms. Abato to select items that can be displayed online without access restrictions. Meanwhile, we will ask Ms. Abato to flag any items that other followers of Chögyam Trungpa Rinpoche (i.e. members of the Shambhala community)
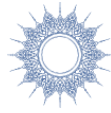
might regard as culturally sensitive. In such cases, we would consult with other members of the community to negotiate suitable access restrictions.

Contingency plan: as with items for which we cannot secure copyright permissions, we can restrict access to individual items of a culturally sensitive nature and only make their metadata visible within CONTENTdm.
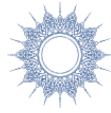
Limited availability of community partners

Working with community partners, though rewarding, also introduces an element of risk: a community partner may decide to end their involvement in a collaborative project at a critical stage. Ms. Abato and other members of the Shambhala community (in Vancouver and internationally) will be generously donating their time to help us complete the project.

We must be cognizant throughout the collaboration of the time demands we are making on our community partner and approach our interactions with diplomacy and tact. As much as we will endeavour to include Ms. Abato and other key stakeholders in decision-making processes throughout the project, we must also remember to be respectful of their time.

Prevention measures: to frame our initial conversations, we will seek to establish a climate of clear and open communication around project goals, time commitments and motivations. To mitigate the limited availability of community partners acting in a voluntary capacity, we will ask Ms. Abato to suggest another person who will be able to assist with the project in case she is unable to or with whom she can split her responsibilities. We will also check in regularly with Ms. Abato and other stakeholders about how the collaboration is going for them, and whether we need to modify any of the project activities to address excessive time demands.

Contingency plan: because the success of the project hinges on working together with our community partner, we have identified a number of alternate partners to work with (BC Gay and Lesbian Archives, Vancouver Maritime Museum and UBC's Rare Books and Special Collections) if our current partners indicate that the time commitment is too burdensome for them to sustain.

Digital Preservation Plan

At the end of the project, we will transfer the preservation folder - containing clearly labelled copies or folders of project materials like archival and production master files, display/access files, exported records from DB/Textworks and so on - on an external hard drive to our community partner. However, even a small-scale digital collection must take long-term access to the materials into account. A number of the items being digitized are unique and of great significance to our stakeholders - it is critical that we provide our community partners with archival quality digital objects and develop end user processes for their ongoing preservation.

For the same reasons outlined in the section on the selection of materials, institution-level strategies for preservation such as the development of formal policies or the establishment of digital repositories would be less suitable for a community partner without an existing infrastructure to sustain them. Our strategies for the digital preservation of the Rinpoche collection are then aimed at simply addressing the digital preservation problems formulated by Besser, as quoted in Jordan (284):

1. Avoiding the use of proprietary file formats where possible (the scrambling problem)

2. Saving archival masters in a widely-supported, platform-independent and uncompressed image file format (the viewing problem)

3. Using an interoperable metadata schema (the translation problem)

4. Augmenting the archival chain of custody by involving Shambhala Vancouver and the Shambhala Archives in the stewardship of the materials (the custodial problem)

5. Capturing information about related files through metadata elements like source and relation (the inter-relation problem)

6. Determining in conjunction with community partners the persons responsible for implementing regular backup, redundancy, refresh and testing procedures

7. Including documentation regarding preservation practices in the preservation folder

Evaluation Plan

Outcome	Indicators	Data Sources	Collected by whom?	How collected and how often?
A well-described and curated collection of 50 digital objects accessible to the public via the CONTENT-dm website	Access to 50 digital objects in the collection described with rich metadata and made accessible by relevant subject headings	Sacred Jewels: Kate Abato's Chögyam Trungpa Rinpoche Collection on the CONTENTdm course website	Devon and Sam	Systematic review of every fifth digital object in the collection for required metadata and relevant subject headings
Creation of i) two archival master files, ii) a display/access file and iii) thumbnail for each digital object	Each file meets the technical specifications enumerated in the project plan	Administrative and technical metadata that i) gets created via scanning or digital photographing, or is attached to ii) display/access files, or iii) thumbnail files	Devon and Sam	Systematic review of every fifth i) archival master file scan-ned or photo-graphed, ii) display/access file created and iii) thumbnail file created
A digital collection that is user-friendly, aesthetically pleasing, and thematically coherent	Percent of users who rate each surveyed characteristic of the digital collection at 'Good' or higher on a 5 point scale	Usability questionnaire distributed to Kate Abato and other Shambhala members tre as well as to SLAIS colleagues	Devon and Sam	Questionnaires distributed in-person and via email from March 20 to April 13
A digital collection that complies with Canadian copyright law	Granting of copyright permissions for all items in the digital collec-tion, or proof of	Copyright statement provided for each digital object in the collection and written	Devon and Sam	Ongoing contact with copyright holders or their descendants and maintenance of documentation

	logical basis for use of fair dealing or orphan works provisions	documentation related to all copyright permissions granted		for granting of copyright permissions
Secure transfer of all files related to each digital object to a designated and trained custodian	Physical transfer of CD-R's and/or USB sticks to designated custodian and knowledge transfer related to digital preservation best practices	Evidence of secure preservation of storage mediums (e.g. CD-R's and USB-sticks) and written documentation of meeting with designated custodian	Devon or Sam	Meeting with designated custodian no later than one month after formal completion of the course project
A digital collection that remains accessible over multiple decades	Sustained integrity of and access to all files and metadata related to each digital object in the collection	All image files (i.e. archival masters, display/access files, thumbnails) and metadata files (i.e. XML documents, Excel spreadsheets)	Desig-nated custodian	Systematic yearly review of every fifth image and metadata file respectively as well as migration and/or refreshing of all digital files

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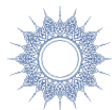
Appendix A: Metadata Schema

No.	Element	Standard	Required?	Definition	Controlled Vocabulary
1.	title	DC	Yes	A name given to the resource.	
2.	creator	DC	Yes	An entity primarily responsible for making the resource.	
3.	identifier	DC	Yes	An unambiguous reference to the resource within a given context.	
4.	date	DC	Yes	A point or period of time associated with an event in the lifecycle of the resource.	W3CDTF profile of ISO 8601
5.	description	DC	Yes	An account of the resource.	
6.	subject	DC	Yes	The topic of the resource.	LCSH, CSH, TASI list
7.	format	DC	Yes	The file format, physical medium, or dimensions of the resource.	MIME
8.	language	DC	Yes	Language of the resource.	RFC4646
9.	rights	DC	Yes	Information about rights held in and over the resource.	
10.	provenance	DC Terms	Yes	A statement of any changes in	

				ownership and custody of the resource since its creation that are significant for its authenticity, integrity, and interpretation.	
11.	coverage	DC	No	The spatial or temporal topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant.	Thesaurus of Geo-graphic Names (TGN)
12.	contributor	DC	No	An entity responsible for making contributions to the resource	
13.	publisher	DC	No	An entity responsible for making the resource available.	
14.	relation	DC	No	A related resource.	
15.	source	DC	No	A related resource from which the described resource is derived.	
16.	type	DC	No	The nature or genre of the resource.	DCMI Type Vocabulary
17.	transcript	N/A	No	The transcript of text included in an item	
18.	rightsHolder	DC Terms	No	A person or organization owning or managing rights over the resource.	
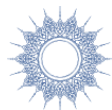
19.	accessRights	DC Terms	No	Information about who can access the resource or an indication of its security status.	
20.	created	DC Terms	No	Date of creation of the resource.	
21.	modified	DC Terms	No	Date on which the resource was changed.	
22.	preservation Level	PREMIS	Yes	A value indicating the set of preservation functions expected to be applied to the object.	
23.	ObjectCategory	PREMIS	Yes	The category of object to which the metadata applies (i.e. representations, files, and bitstreams).	
24.	messageDigest Algorithm	PREMIS	Yes	The specific algorithm used to construct the message digest for the digital object.	
25.	messageDigest	PREMIS	Yes	The output of the message digest algorithm.	
26.	storageMedium	PREMIS	Yes	The physical medium on which the object is stored.	
27.	colorSpace	NISO Z39.87	Yes	A designation of the colour model of the decompressed image data.	

28.	imageWidth	NISO Z39.87	Yes	A specification of the width of the digital image, i.e. horizontal or X dimension, in pixels.	
29.	imageHeight	NISO Z39.87	Yes	A specification of the height of the digital image, i.e. vertical or Y dimension, in pixels.	
30.	bitsPerSample	NISO Z39.87	Yes	The number of bits per component for each pixel.	

Table adapted from S. Anderson et al., (2006), *Digital Images Archiving Study*, pp. 85-90.

Appendix B: Imaging Quality Criteria[7]

Documents (bound & unbound: rare or special)[8]

	Master	Access	Thumbnail
File format	TIFF	JPEG[9]	JPEG[10]
Bit Depth	48-bit colour	24-bit colour 8-bit grayscale	24-bit colour 8-bit grayscale
Resolution	600 ppi[11]	200 ppi	72 ppi
Approx. file size[12]	200 MB	730 KB (colour) 250 KB (gray)	20 KB (colour) 10 KB (gray)

Prints and Photographs

	Master	Access	Thumbnail
File format	TIFF	JPEG	JPEG
Bit Depth	48-bit colour	24-bit colour[13]	24-bit colour
Resolution	600 ppi	200 ppi	72 ppi
Approx. file size	50 MB[14]	190 KB	5 KB

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[7] Master specifications adapted from FADGI's "Technical Guidelines for Digitizing Cultural Heritage Materials"and based on a document size of 8.5 inches by 11 inches (the largest-sized document in the current collection of source materials). The calligraphy print is approximately 11 inches by 17 inches and the photographs are 4 inches by 6 inches.

[8] The FADGI 4-star standard is the same for rare or special bound and unbound documents.

[9] Estimate based on a compression ratio of 15, approximately equivalent to a quality setting of "9" when saving a JPEG in Adobe Photoshop.

[10] Estimate based on a compression ratio of 65, approximately equivalent to a quality setting of "1" when saving a JPEG in Adobe Photoshop.

[11] Due to the rare nature of some of the unbound documents, we have chosen a resolution that exceeds the minimum 400 ppi recommended by FADGI.

[12] File size estimated using Backstage Library Works' handy TIFF image file size calculator.

[13] All photographs and prints will be made available in colour.

[14] The one exception is the calligraphic print, which will be considerably larger (approx. 400 MB).

Appendix C: Digitization Workflow

Jordan describes workflow modelling as "the process of analysing the tasks that are required to achieve a specific outcome" (255). The outcome analysed in our workflow is *objective 3: create 50 digital objects with 2 archival master files, 1 display/access file, and one thumbnail file for each one*. It represents the primary activity within the project, the digitization - that is, the selection, capture, conversion, processing and description - of the collection materials. The workflow is modelled on the premise that materials will be ingested by the CMS in batches of five digitized items, which are kept together in an ingest folder (for 50 items, there will be ten ingest folder packages).

Required resources for the workflow include a scanner, an external hard drive, Adobe Acrobat Pro (for OCR), Adobe Photoshop (for image adjustments), DB/Textworks, CONTENTdm, MS Excel, cloud storage server for backups and the community partner's source materials.

Note: the workflow diagram (p. 29) represents an idealized model of how each item will move through the workflow sequence; in actuality, multiple items may move through the workflow in batches at a time for the sake of efficiency (e.g. transporting materials).

Project Management	Imaging	Metadata	Collection Management

Project Management
- Select source material
- Request copyright permission from copyright owners — *not received*
- *received or feasible to restrict access*
- Document copyright permissions
- Transport materials to SLAIS for processing

Imaging
- Scan source material
- Create and name archival master
- Inspect image quality of archival master file — *unsatisfactory*
- *satisfactory*
- Perform image processing and OCR as necessary
- Create and name production master
- Create and name access file
- Inspect image quality of master and access files — *unsatisfactory*
- *satisfactory*
- Backup master and access files to secondary storage
- Copy master and access files to preservation folder
- Copy access file to ingest folder for batch upload
- *ingest folder contains < 5 collection items*
- *ingest folder contains 5 collection items*
- Return materials to community partners

Metadata
- Create administrative metadata
- Create descriptive metadata
- Create preservation metadata
- Export metadata to tab-delimited text file
- Proofread and verify accuracy of metadata text file
- Move metadata text file to ingest folder

Collection Management
- Ingest materials in collection manager (via folder upload)
- Verify metadata assignment in collection manager
- Perform quality control review of collection records