# CREATING DIGITAL COLLECTIONS



Home

Search

Interviews

Gallery

Abou

Resources

Contact

### Search the Germans from Russia Collection

Enter one or more keywords in the search box.

SEARCH

CH | Search Tips

#### Advanced Search

CONTENTdm's Advanced Search allows you to search specific metadata fields and construct more complex queries.

Results of both keyword and advanced searches are displayed in one or more pages of thumbnails. Click on the thumbnail to open the image, map, or transcript, or play the audio excerpt. Transcripts are in PDF format, and require Adobe Acrobat Reader to view. Acrobat Reader may be downloaded free from the Adobe website.







Horse powered grain harvester.



## Today's Presenters

#### **Professor Beth Oehlerts**

Metadata Management Librarian Metadata and Preservation Services

#### Professor Nancy Hunter

Metadata Librarian

Metadata and Preservation Services

#### Professor Shu Liu

Digital Content Librarian

Digital Repositories Services

In the Pame of The Hather, And of The Son, and of The Holy Chost. Amen. Me do Certify:

That, according to the ordinance of Christ Himself, we did administer to

Anna Michala Hogarty
THE SACRAMENT OF

### \* Holy Paptism, \*

thereby making her a Member of Christ, the Child of God, and an Inheritor of the Kingdom of Heaven; on the pifteenth day of Normber, in the Year of our Lord, One Thousand Eight Hundred and Ministry; the said administration being in Church, Inches, in the Diocese of Colorado (Signed) Frank W. Horney.

Parents.

Sponsors

Sponsors

or

Witnesses.

Mrs. Sarah Ann Mogarty.

RECORD OF MINUTES.

36

Minutes of akhual Stockholders	Monton
of the godfrey Dilet Co:	Meeting
heis at Ken hore Farm La Palle Colo.	
by order of Merident W. T. Sylvester	
at 12 one o'clock P. M. Feb: 5th 1912	

Meeting bes called & order by Recident W.T. Palverter 120 thank of Stock ben represented Munter of last annual hecting held on Feli: 6/1911 ben lead or accepted Treasurer handed in his report Morning a balance in hand of \$87.57 Total indebteduces of Ditch 6. \$3801.85 moved & acounted that Treasurer's report he accepted - motion carried -Romanation for Ductors for luxuing year-Motion by J. Langhlin Monded by lury R.B. Miller . Learler that W.T. Lylvester B. K. Hackey & C. B. Norrie be homenter for dischool - holon Carried - homen strong Secretary was instructed of cast ballot W.T. Iglaster B. K. Kachung & C. B. home bere duly elected. Proposed by a. T. Patow + Seconded by I daughter That an assessment of to 7 - per those be levied against each stockholder part & apply an indebledness speel of defray Expanses for Reving leason. moted carried motion by C.B. Norrie + Monded by B.G. fod per that the above accessment be payable by have 1th /1912 + that it there Man interest at the late of 8" per aux:

after that date, mutil paid -

hand + acounded that C. B. home

notion Carried.





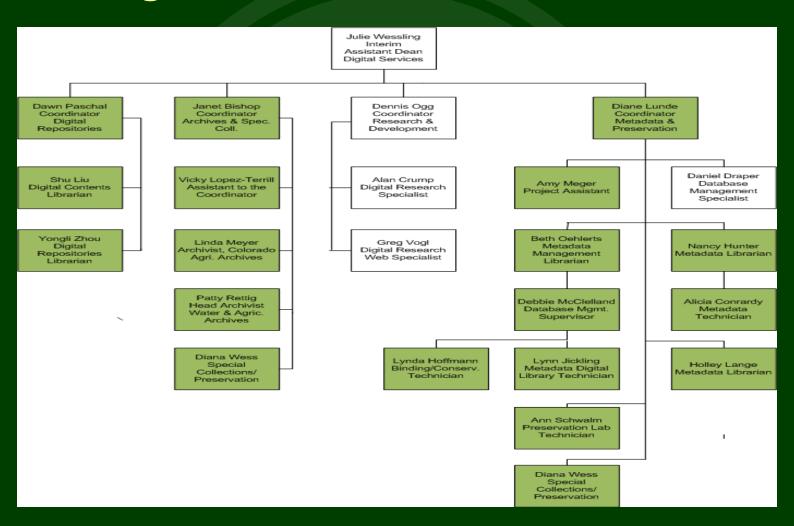
## Beauty Bright for your home with Colorado Camations

Whether your home is traditional or contemporary, Colorado Carnations will add the touch of gay, height color that warms the room and makes it intimate, friendly, and welcoming. Use these beautiful blooms...give them... for every occasion of love and good cheer.

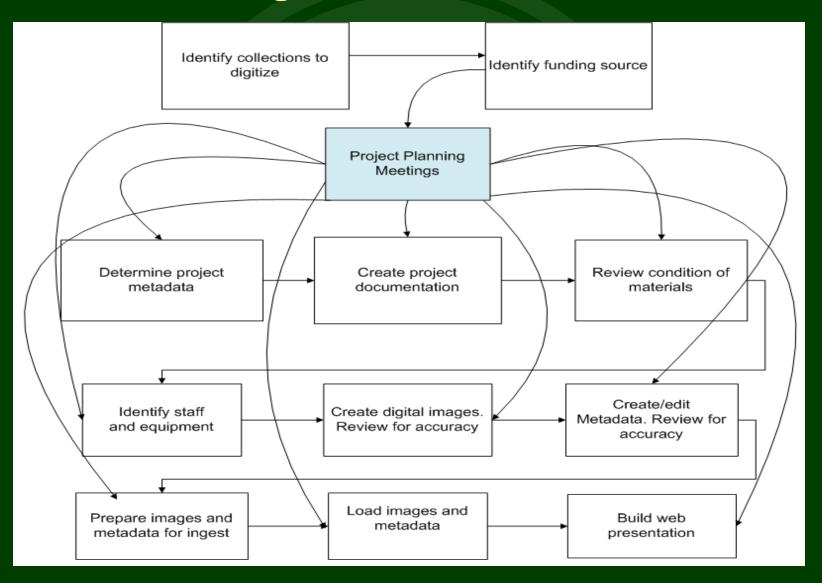
"Old Model" Colonile Committees Asserted to only trade-marked flower. This little soul in year pureastic of fiscot quality.

COLORADO FLOWER GROWERS ASSOCIATION, INC . COLORADO . CARNATIONS . DENVER, COLORADO

## Digital Services Division



## **CSU Digitization Workflow**



## Project Decisions Include

- What will we digitize?
- What standards (copyright, metadata, digitization, preservation, etc.)
- What equipment will we use?
- Who has the skills?
- Who is available?
- When do we need it is there a deadline?

## Documenting Our Work

Record project decisions

Record project progress

Track expenditures

Plan more efficient projects

## Tracking Digitization Projects at CSU

-4	В	С	D	E	F	G	Н	I	J	K	L	М	N	0
	Project Type	Project Name	Email	Requestor	Items	Date Due	Coll. Code	Collection Name	Unique Identifier	Deliverables	Special Handling Require d	Treat As	Orienta tion	Dimen sions
2	Ad Hoc	TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 15 GPN	7/1/2009	UHPC	University Historic Photograph Collection	UHPC_149	JPEG 600 dpi		artifact	NA	NA
3	Ad Hoc	TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 12 GPN	7/1/2009	UHPC	University Historic Photograph Collection	UHPC_5478	JPEG 600 dpi		artifact	NA	NA
4	Ad Hoc	TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 26 GPN	7/1/2009	UHPC	University Historic Photograph Collection	UHPC 5375	JPEG 600 dpi		artifact	NA	NA
5	Ad Hoc	TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 16 GPN	7/1/2009	UHPC	University Historic Photograph Collection	UHPC 1718	JPEG 600 dpi		artifact	NA	NA
6	Ad Hoc	TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 15 GPN	7/1/2009	UHPC	University Historic Photograph Collection	UHPC_916	JPEG 600 dpi		artifact	NA	NA
		TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 16 GPN	7/1/2009	UHPC	University Historic Photograph Collection	UHPC_2537A	JPEG 600 dpi		artifact	NA	NA
		TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 12 GPN	7/1/2009		University Historic Photograph Collection	UHPC_4717	JPEG 600 dpi		artifact	NA	NA
		TILT Request	victoria.lopez- terrill@colostate.edu	Vicky Lopez- Terrill	1 item from Squid, Box 19 GPN	7/1/2009		University Historic Photograph Collection	UHPC_5434	JPEG 600 dpi		artifact	NA NA	NA NA

## Conservation Before Digitization

Provide conservation treatments when appropriate

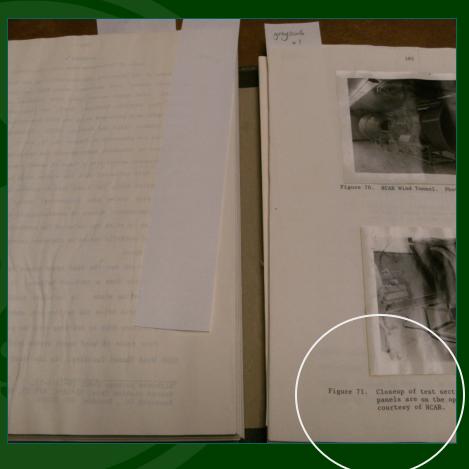
Create protective book holders for fragile materials

Re-house materials when digitization is complete

## Other Conservation Conditions

Adjust for some conditions:

- Wavy pages
- Volume opens less than 90°
- Gutter margin less than ½ inch



Moisture damaged volume

## Digital Scanning

 CSU follows international standards by creating archival TIFF (Tagged Image File Format) images

Image files are compressed, using LZW compression, to maximize server storage space

## Scanning Equipment

One Zeutschell OmniScan 10000TT Overhead scanner



Two Microteck photographic negative scanners



Six Epson flatbed scanners



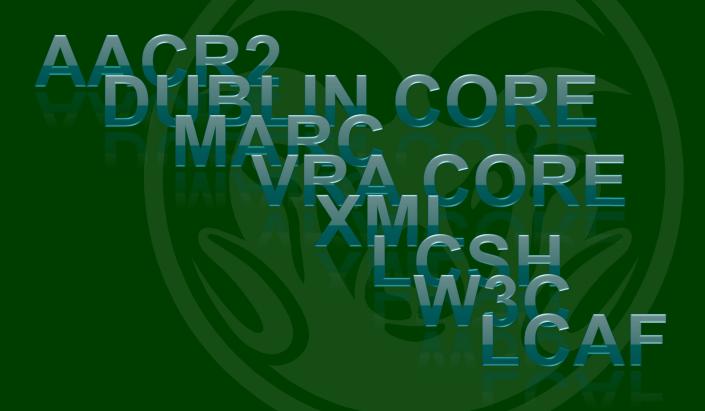
## Quality Control of Images

• 10-30-100% rule

Time-intensive



## Metadata



## What is Metadata?

Data about data

Descriptive and technical information about resources

## Types of Metadata

#### А979442-ОХФ-ЧЗ-4

#### Мищенко, Александр Сергеевич.

Сборник задач по дифференциальной геометрии и топологии [Текст] / А. С. Мищенко, Ю. П. Соловьев, А. Т. Фоменко; под общ. ред. А. Т. Фоменко; отв. ред. Ф. Ю. Попеленский. - 2-е изд., доп. и перераб. - М.: Физматлит, 2004. - 411, [1] с.: рис. - Библиогр.: с. 410-411 (24 назв.). - ISBN 5-94052-078-2 (в пер.): 242.00 р.
УДК 514.7(076) + 515.1(076)

Рубрики: математика -- геометрия -- топология

Кл.слова: дифференциальная геометрия -- топология --

Экз-ры: ОХФ-ЧЗ-4(1) Доп. точки доступа: Соловьев, Юрий Петрович

Соловьев, юрии петрович Фоменко, Анатолий Тимофеевич

#### Compound angles, by David W. Moser.

LC Control No.: 72011472

LCCN Permalink: http://lccn.loc.gov/72011472

Type of Material: Book (Print, Microform, Electronic, etc.)

Personal Name: Moser, David W.

Main Title: Compound angles, by David W. Moser.

Edition Information: [Ed. 1]

Published/Created: Scranton, International Correspondence Schools [1969]

Description: 30 p. illus. 23 cm.

## Types of Metadata

## THE OSOBYI ARCHIVE GERMAN RECORDS IN MOSCOW A GUIDE



Almost every German government agency ended up in "East" Berlin. As a result, the Russians had a unique power to collect German government documents. The end of the Cold War finally allowed researchers from the West access to many of of these historical documents held in Russian archives. A key part of these records may be found in the Russian State Military Archive within the collection entitled the "Osobyi Arkhiv" (Special Archive). When consulted in tandem with the holdings of captured German documents in the United States and in Germany proper, the Special Archive can provide a great deal of additional documentation on the history of the Third Reich.

#### Guide to the Sidney Heitman Germans from Russia in Colorado Study Project Collection

Prepared by Colleen M. McCorkell

Colorado State University Archives and Special Collections

Morgan Library, Fort Collins, Colorado 80523-1019 USA

☐ 2004 Colorado State University. All rights reserved.

Finding aid encoded in EAD Version 2002 by Alicia Conrardy, 2004.

#### TABLE OF CONTENTS

**Collection Summary** 

## Types of Metadata











Object - JPEG2000 Image (3 M)

Bookmarkable URL http://hdl.handle.net/10217/22518

Authors Colorado State University

Title A.A. Edwards (State Board of Agriculture) moving books from Old Library

Subjects Colorado Agricultural College -- Employees

Colorado Agricultural College -- Faculty

Edwards, Alfred A.

**Description** An older mustached man in a 3-piece suit, white shirt and tie, and hat carries a stack of

8 books from the Old Library.

Publisher Colorado State University. Libraries

Date 1928-04-05

Series University Historic Photograph Collection, Archives and Special Collections, Colorado

State University; Series I: Glass Plate Negatives; Subseries G: Faculty, Staff, and Others. Finding aid: <a href="http://lib.colostate.edu/archives/findingaids/university/uhpc.html">http://lib.colostate.edu/archives/findingaids/university/uhpc.html</a>

Rights http://www.acns.colostate.edu/?page=copyright

Related collections CSU Archives and Special Collections > University Historic Photograph Collection >

Faculty, Staff, and Others

## Metadata Standards for U.S. Library Catalogs

- Anglo-American Cataloging Rules, 2<sup>nd</sup> ed. (AACR2)
- Library of Congress Rule Interpretations (LCRIs)
- MAchine-Readable Catalog records (MARC)
- Library of Congress Subject Headings (LCSH)

# Metadata Standards for U.S. Digital Collections

- Dublin Core
  - VRA Core
  - ETD-MS
  - PB Core

## **CSU Core Data Dictionary**

Based on Dublin Core

- Defined Elements
  - Obligation
  - Repeatability
  - Best practices for data entry
- Basis for project-specific data dictionaries to follow

## Each Digitization Project Needs

- Consultations among
  - Project Manager
  - Digital Repositories Librarians
  - Metadata Librarian
- Determine
  - Does metadata exist elsewhere?
  - Who will create the metadata?
  - Specific project requirements?
- Document decisions
  - Adhere to CSU Core

Object		Moving cattle quietly (1 M)	out of a ga	te - WMV file				
Bookmarkable URL	http://hdl.ha	ndle.net/10217/652						
Authors	Grandin, Te	mple						
Title	Moving catt	le quietly out of a gate						
Keywords	cattle; hand	lling						
Description		clip demostrates how to r ed_steadv_pace. Object	nove cattle	out of a gate - JPEG2000 In	nage (3 M)			
Publisher	Colorado St	Bookmarkable URL	http://hdl.ha	andle.net/10217/21841				
Department	Animal Scie	Authors	Colorado S	tate University				
Rights	Copyright o	Title		Mr. Harris of Ft. Collins				
		Subjects		gricultural College. Coop		1 Service		
	- 1	Description	Eight of 12 sidelines.	eight Competitions C pigs eat from a feeding tr Object	ough, while 3 me	n watch from the  Baking angel food cake at any altitude / - PDF		
	- 1	Publisher	Colorado S		PDF	Document (1 M)		
	'	Date	1924-10-17	Bookmarkable URL	. http://hdl.har	ndle.net/10217/5385		
		Series	University Collections	Authors	Barmore, Ma	ark A. (Mark Alfred), 1905-		
	Su		Subseries Title		Baking angel food cake at any altitude / by Mark A. Barmore.			
		Rights		Subjects	CakeColor	rado.		
		regimo	The part of the last	Description	Cover title.			
				Publisher	Colorado Ag	ricultural College, Colorado Experiment Station,		
				Date	1935.			
				Extent	15 p. : ill., ma	ap ; 23 cm.		
				Series	Technical bu	ul. (Colorado Agricultural Experiment Station) ; 13.		
				Rights	"http://www.	acns.colostate.edu/?page=copyright"		

## Providing Web Access



## Digital Assets Management System

DigiTool (provided by Ex Libris)

- Purchased May 2007
- Powerful & many functions
- One year of implementation & testing
- In production since March 2008
- Over 8,000 digital objects up to date







Home Collections Find Services About Us Help

A to Z | Site Map | Search

Catalog | Regional Catalog | Databases | Journals | Archives | Digital Collections | Repository

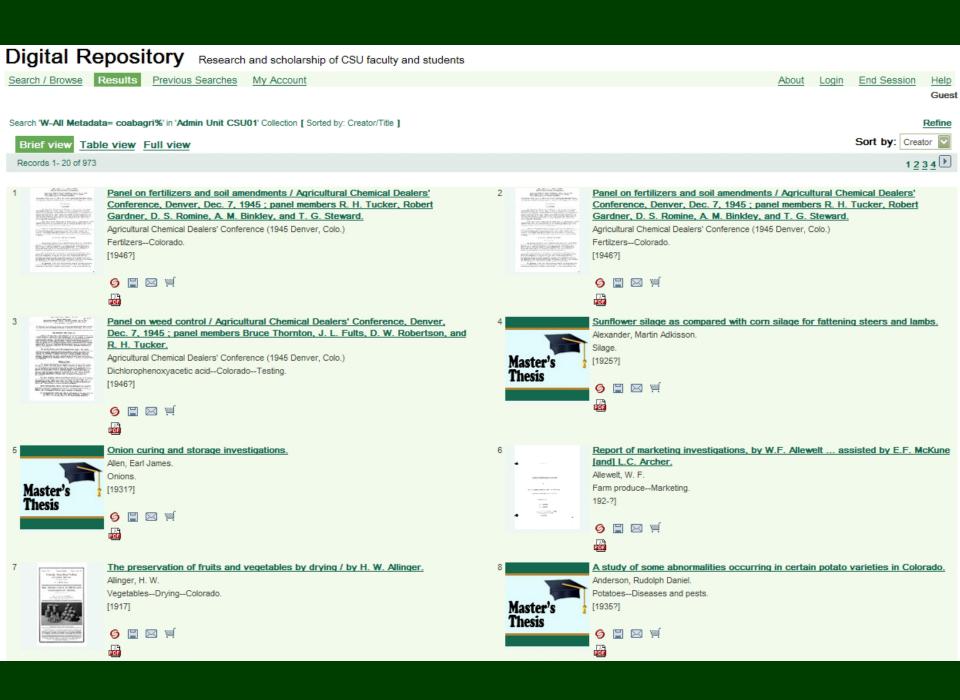
My Accounts | Contact Us

#### Digital Repository Research and scholarship of CSU faculty and students

	Search / Browse Results Previous Searches	My Account	About Login End Session Help
			Gues
	Simple Search Advanced Search		
	A word or phrase:	Search	
	⊙ Contains    ○ Exact    ○ Starts With		
	Select collection: General	$\overline{\mathbf{v}}$	
ì	D 0-111:		
ŀ	Browse Collections		
	CSU Departments and Schools (655)	CSU Colleges (2297)	CSU Centers and Research Institutes (339)
	Agricultural and Resource Economics , Animal Sciences ,	University Libraries , Warner College of Natural Resou	Colorado Institute of Public Policy , Colorado Water Institute ,
	Anthropology		Cooperative Institute for Research in the Atmosphere
	CSU Archives (3952)	CSU Conference Proceedings (17)	CSU Journal Publications (19)
	Board of Governors , Colorado Agricultural Archive , Colora		Journal of Student Affairs , Furthering Perspectives
		rofest biolilass Conference	Journal of Student Arians , Furthering Perspectives
	Agricultural Experiment Station		
	CSU Theses and Dissertations (128)	CSU-Pueblo (18)	Student Research Projects (39)
	1920-1949 . 1980-Current	University Library	Celebrate Undergraduate Research and Creativity (CURC) Showcase

DigiTool Resource Discovery © 2006 Ex Libris

#### Digital Repository Research and scholarship of CSU faculty and students Search / Browse Results Previous Searches My Account End Session About Login Guest Search "W-All Metadata= uhpcs01c% or uhpcs02c% or uhpcs03e% or uhpcs05c%' in 'Admin Unit CSU01' Collection [ Sorted by: Creator/Title ] Refine Sort by: Creator Brief view Table view Full view 1234 Records 1-20 of 324 A corner in the old library at Christmas time 3 Flags Colorado State University Colorado State University Flagpoles -- Colorado -- Fort Collins Colorado Agricultural College -- Buildings undated \[ \begin{align\*} & \overline{\text{\tint{\text{\text{\text{\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tint{\text{\text{\text{\text{\text{\text{\text{\tint{\text{\tint{\tint{\tint{\text{\tint{\tint{\tint{\tint{\tint{\tint{\tint{\tint{\tint{\text{\tint{\text{\text{\text{\text{\text{\tinit}}\\ \tint{\text{\text{\text{\text{\text{\text{\text{\ti}\tint{\text{\text{\text{\text{\text{\text{\tinit{\text{\tinit{\text{\tinit}}\\ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tinit}\\ \tinithtt{\tinitht}\\ \tint{\text{\tinit}}\\ \tinttitet{\text{\text{\texitin}\text{\text{\texi}\tint{\text{\tinitht}\\ \tint{\text{\tinit}\\ \tinttitet{\text{\texitileft{\text{\tinit}\tint{\text{\tinit}\t JPB UPE A corner in the old library at Christmas time A drive on College Campus Colorado State University Colorado State University Colorado Agricultural College -- Buildings Colorado Agricultural College undated undated \[ \begin{align\*} & \overline{\text{\tint{\text{\tint{\text{\text{\text{\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tint{\text{\text{\text{\text{\text{\text{\text{\tint{\text{\tint{\tint{\tint{\text{\tint{\tint{\tint{\tint{\tint{\tint{\text{\tint{\tint{\text{\tinit}\\ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tinit{\titil\tint{\text{\text{\tinit}\text{\text{\text{\tinit{\text{\tinit}}\\ \tint{\text{\tinit}}\\ \tint{\text{\text{\text{\text{\texi}\text{\text{\text{\text{\text{\text{\tinit}}\text{\text{\text{\text{\text{\texi}}\text{\text{\text{\texitil{\text{\text{\texi}\tint{\text{\texi}\text{\texitil{\texi}\tint{\texi}\tint{\text{\tiin}\tint{\tiint{\tii}\tint{\tiin}\tint{\tiin}\tint{\tiin}\tint{ JPZ UPE Aq. Hall (Colin) Advertising Card Colorado State University Colorado State University Colorado Agricultural College Colorado Agricultural College -- Buildings 1929 undated 6 🖺 🖂 🛒 JPZ JPE [Aggie Station, burned] Agricultural Building Colorado State University Colorado State University Colorado Agricultural College -- Buildings Colorado Agricultural College -- Buildings undated undated JPZ



Digital Repository Research and scholarship of CSU faculty and students

Search / Browse Results Previous Searches My Account

About

End Session

Guest

Search 'W-All Metadata= uhpcs01c% or uhpcs02c% or uhpcs03e% or uhpcs05c%' in 'Admin Unit CSU01' Collection [ Sorted by: Creator/Title ]

Refine Sort by: Creator

Brief view Table view Full view

14 15 16 17 18 19 20

Record 17 of 324

JPE Object - JPEG2000 Image (6 M)

Bookmarkable URL http://hdl.handle.net/10217/19776

Colorado State University Authors

Title Air Photo of Campus

Colorado Agricultural College -- Aerial views Subjects

Description Aerial photograph of Colorado Agricultural College campus.

Publisher Colorado State University. Libraries

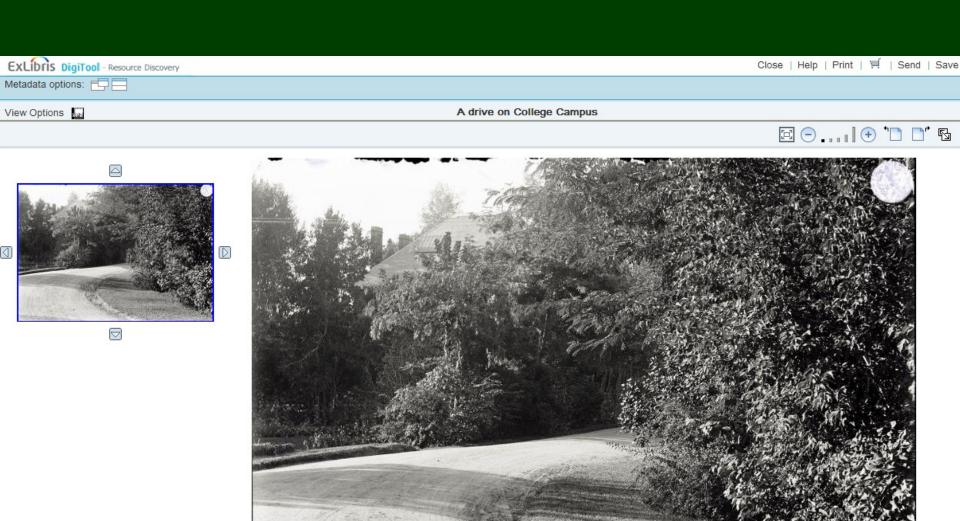
1929 -10-07 Date

Series University Historic Photograph Collection, Archives and Special Collections, Colorado State University; Series I: Glass Plate Negatives; Subseries C: Campus Buildings and Scenes. Finding aid:

http://lib.colostate.edu/archives/findingaids/university/uhpc.html

Rights http://www.acns.colostate.edu/?page=copyright

Related collections CSU Archives and Special Collections > University Historic Photograph Collection > Campus Buildings and Scenes



### Workflow

- File Preparation
  - Image: TIFF → JP2
  - Document: TIFF → PDF
  - Video/Audio: more to ingest
- Metadata Preparation
  - Types: Dublin Core, MARC, METS
  - Methods: MS Excel, XML, post-ingest addition
- Ingest

## Ingest

Different approaches (DC XML, MARC XML, .CSV, METS) depending on

- System (DigiTool)
  - functions/requirements
  - batch ingest
- Staff skills
- Material types
- Available metadata

\*Efficiency without sacrificing quality\*

# Metadata Encoding and Transmission Standard (METS)

- "... a standard for encoding descriptive, administrative, and structural metadata regarding objects within a digital library, expressed using the XML schema ..." – Library of Congress
- Used for creating and delivering complex digital objects represented as a whole (e.g. books, journals, archival folders)
- Used in combination with MARC, Dublin Core for descriptive metadata

```
3 ♥ <metsHdr>
4 🗸
       <agent ROLE="CREATOR" TYPE="ORGANIZATION">
 5
         <name>Colorado State University</name>
 6
        </agent>
 7
       </metsHdr>
 8 🗢
      <dmdSec ID="dmd001">
        <mdWrap MDTYPE="DC" MIMETYPE="text/xml" LABEL="Dublin Core Metadata">
 9 🗸
                                                                                                                      METS XML
10 ▽
11 ▽
          <dc:record xmins:dc="http://purl.org/dc/elements/1.1/" xmins:dcterms="http://purl.org/dc/terms/">
12
           <dc:title>Irrigation methods (sprinkler), 6/19/62</dc:title>
13
14
           <dc:identifier>WGDCS10A101814</dc:identifier>
15
16
           <dc:identifier>WWDL</dc:identifier>
17
18
           <dc:date>1946 - 1964</dc:date>
19
20
           <dc:creator>varies</dc:creator>
21
22
           <dc:subject>Irrigation -- Colorado</dc:subject>
23
24
           <dc:subject>Irrigation -- Equipment and supplies</dc:subject>
25
           <dcterms:spatial>Colorado</dcterms:spatial>
26
27
           <dcterms:temporal>1946 - 1964</dcterms:temporal>
28
29
30
           <dc:description>Irrigation sprinklers and pipes</dc:description>
31
           <a href="cterms:tableOfContents">Sprinkler system of B.R. Rapp near Cope. 1/4 mi. 4 in. steel pipe (Hardesty). 3 in. pump, 1946-08-14 -- Oliver-Wheeler farm at Masters. 6 in. header pipe, 4 in. latera
32
33
           <dc:type>Still Image; Image; StillImage</dc:type>
34
35
36
          <dcterms:metadataschema>Water Resources Archive Data Dictionary v. 1.0</dcterms:metadataschema>
37
           <a href="cterms:isPart0f">Groundwater Data Collection. Series X: Visual materials; Subseries A: Slides. Finding aid: "http://lib.colostate.edu/archives/findingaids/water/wgdc.html"</a>/dcterms:isPart0f<
38
39
           <a href="dcterms:isFormat0f>lrigation">dcterms:isFormat0f></a> dcterms:isFormat0f> dcterms:isFormat0f>
40
41
42
           <dc:source>Original: 47 35 mm slides (10 not scanned)</dc:source>
43
44
           <dc:publisher>Colorado State University. Libraries</dc:publisher>
45
46
           <dc:rights>"http://www.acns.colostate.edu/?page=copyright"</dc:rights>
47
           <dcterms:contributinginstitution>Colorado State University. Libraries</dcterms:contributinginstitution>
48
```

mets,PROFILE="http://www.exlibris.co.il/digitool/xsd/exlibris\_mets\_profile\_v1.0.xml" TYPE="image folder"

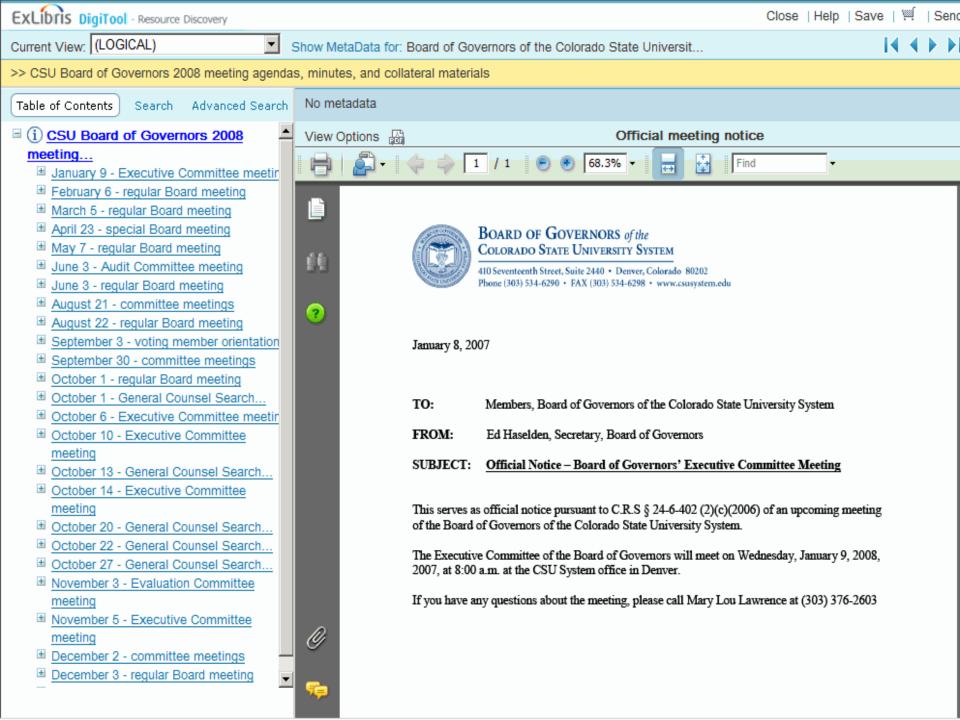
49

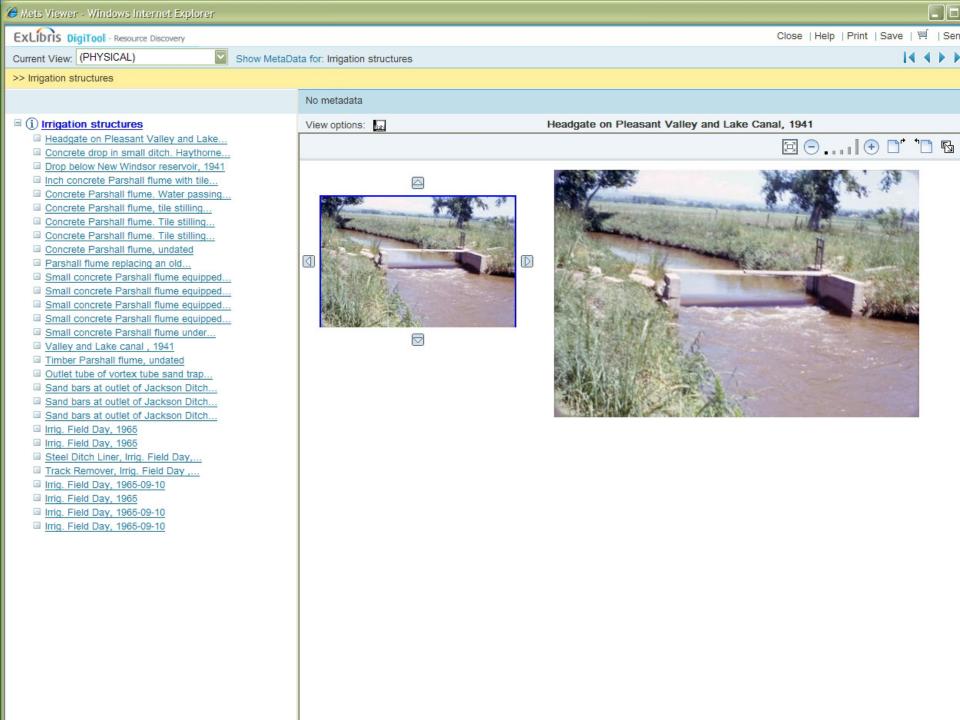
50

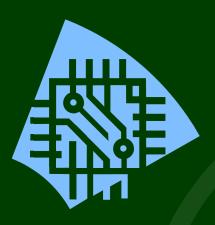
51 52 </dc:record>
</xmIData>

</mdWrap>

</dmdSec>







## Observations

- Close collaboration across digital units
- Plan & test: develop workflows
- Preparation: files, metadata
- Lots of details: file names, special characters, structure, etc.

## Building Digital Collections Requires

- Adequate funding
- Comprehensive planning
- Training
- Documentation

- Quality control reviews
- User-friendly metadata
- A well-designed web presentation
- A preservation policy

## Thank you!