

Breaking Up with CONTENTdm... AlabamaMosaic: Using VuFind to Index a Distributed Digital Collection

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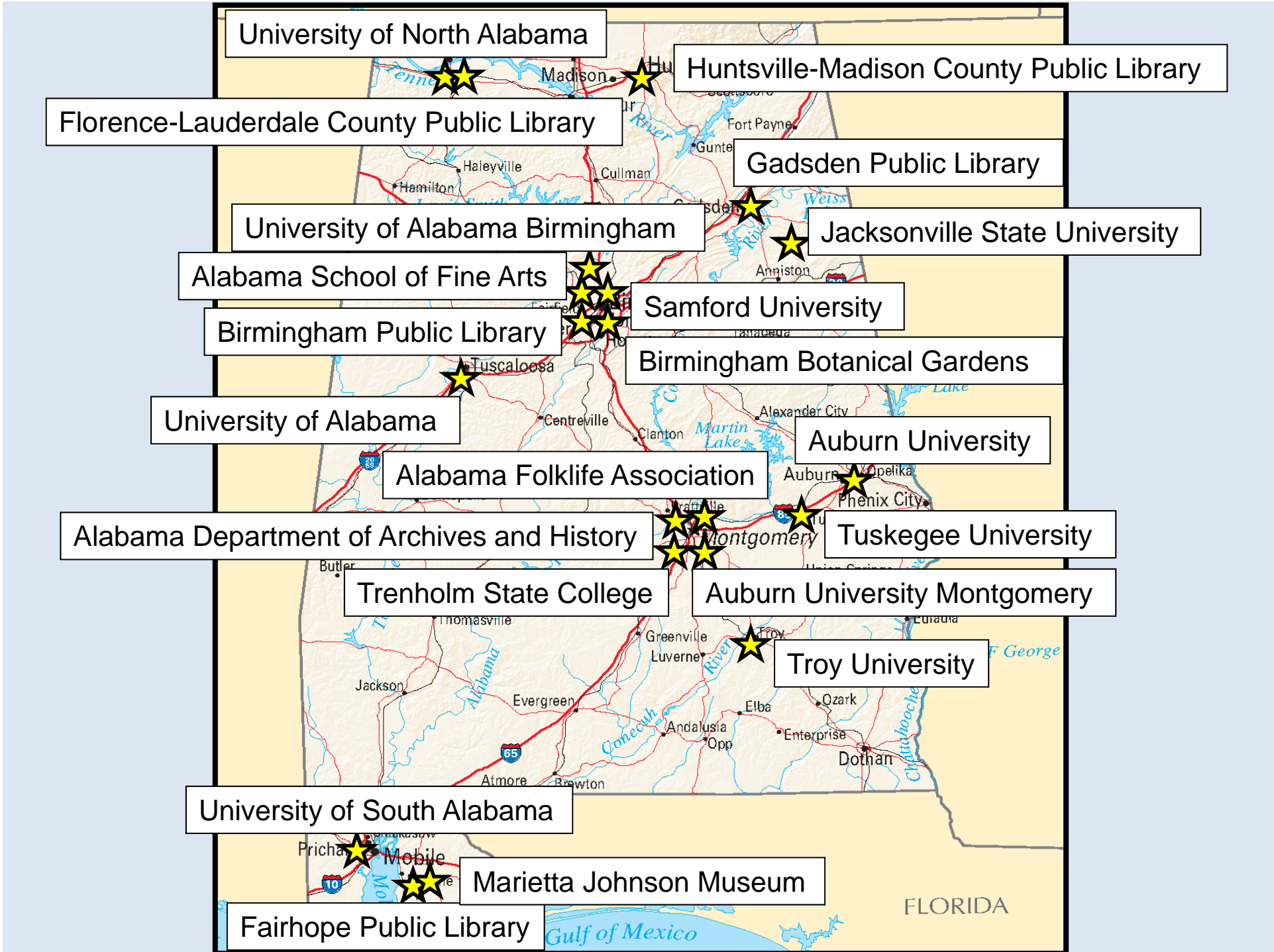




AlabamaMosaic: Using VuFind to Index a Distributed Digital Collection



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Auburn University Libraries





What Does "Distributed" Mean?



Why Did We Leave MultiSiteServer?



571



- 2012: Page views for AlabamaMosaic Web site had been going down since 2010
- 65% of visits lasted 10 sec or less
- Traffic from AlabamaMosaic to Auburn's digital collections was 0.1%
- 2009 Survey: Users wanted a better search
- Rumor: OCLC would discontinue support for MultiSite Server "soon"
- University of Alabama digital collections no longer in CONTENTdm: MSS couldn't index



VuFind to the Rescue!



- Open source software => Local customization
- Local (Auburn) VuFind experience => Local expertise
- Intuitive public interface (“Google-like”); better searches; facets for narrowing results
- VuFind can index digital collections via OAI-PMH and XSL transforms
- VuFind can index from content management systems other than CONTENTdm (MSS software can only index CONTENTdm collections)

What Metadata Fields Should We Use?





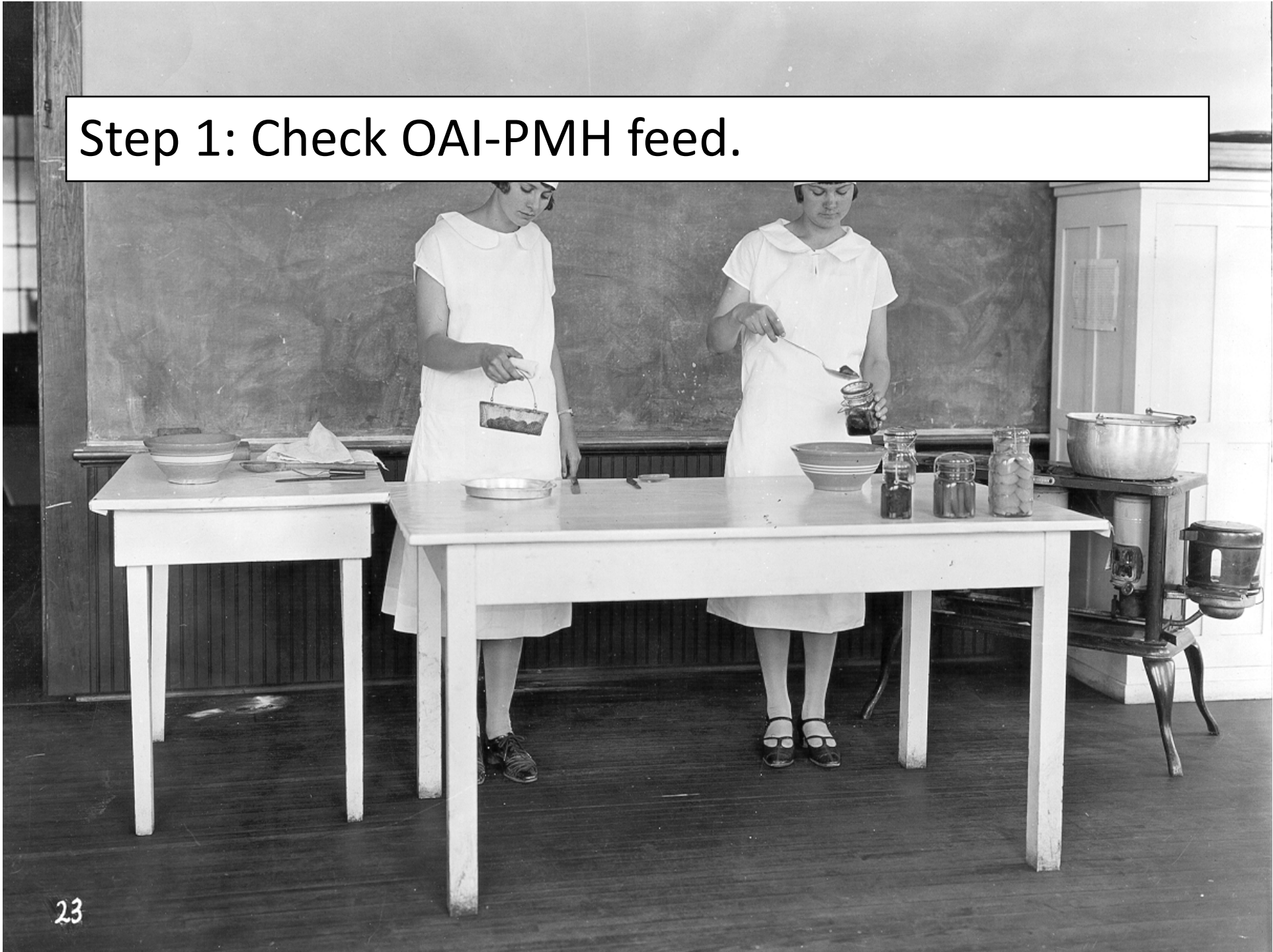
- Hard-coded:
 - Collection name
 - Institution/publisher name
- Harvested:
 - Link to item thumbnail
 - Link to item in native collection
 - Title
 - Creator(s)
 - Description
 - Subject terms

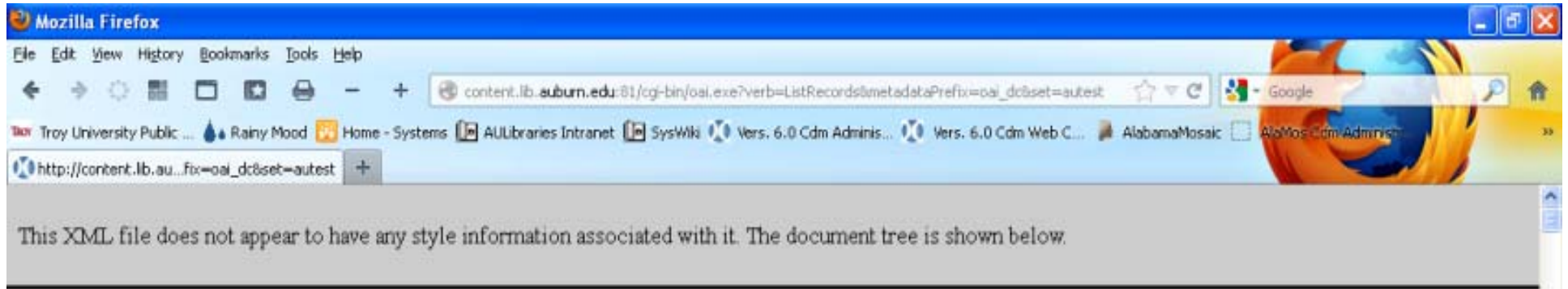


**How Does the Harvesting
Process Work?**



Step 1: Check OAI-PMH feed.





```

- <OAI-PMH xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
  <responseDate>2013-05-29T18:15:47Z</responseDate>
  <request verb="ListRecords" metadataPrefix="oai_dc" set="autest">http://content.lib.auburn.edu:81/cgi-bin/oai.exe</request>
- <ListRecords>
  - <record>
    - <header>
      <identifier>oai:content.lib.auburn.edu:autest/0</identifier>
      <datestamp>2010-05-11</datestamp>
      <setSpec>autest</setSpec>
    </header>
    - <metadata>
      - <oai_dc:dc xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/oai_dc/ http://www.openarchives.org/OAI/2.0/oai_dc.xsd">
        <dc:title>County agents and other extension leaders</dc:title>
        - <dc:description>
          Caption: "A group portrait of county agents and other Alabama Cooperative Extension Service leaders with Alabama Farm Bureau leaders. Place:
          Montgomery, Alabama. Date: April 15, 1922. Fred Stewart is the last man on the right on the front row." April 15, 1922.
        </dc:description>
        <dc:date>1922-04-15</dc:date>
        <dc:coverage>Montgomery Co. (Ala.)</dc:coverage>
        <dc:creator>Unknown</dc:creator>
        <dc:publisher>Auburn University Libraries</dc:publisher>
        <dc:type>Image</dc:type>
        <dc:format>JPEG</dc:format>
        - <dc:identifier>
          http://www.lib.auburn.edu/archive/find-aid/071p/ ; http://www.lib.auburn.edu/archive/find-aid/071.htm
        </dc:identifier>
        <dc:identifier>71.12.1.1</dc:identifier>
        - <dc:source>
          ACES (Alabama Cooperative Extension System) Records, RG 71: PHOTOGRAPHS, 1920s-1960s
        </dc:source>
      </oai_dc:dc>
    </metadata>
  </record>
</ListRecords>

```

OAI-PMH Feed: XML Output



Step 2: Customize XSLT file .





```
C:\Documents and Settings\coatem\Deskto\AO\toVuFind\AU\AU\autest_oai_vufind_JG1.xsl - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
AU\autest_oai_vufind_JG1.xsl
51 <!-- AU hard coded values and most of the <doc></doc> fields are generated or called from here -->
52 <!-- CUSTOMIZE THESE FOR EACH SOURCE -->
53 <xsl:template match="oai_dc:dc">
54 <!-- Begin hard coded values -->
55 <field name="format">Electronic</field>
56 <field name="collection">Alabama Cooperative Extension Service Photographs Collection</field>
57 <field name="building">Auburn University Digital Library</field>
58 <field name="publisher">Auburn University Libraries</field>
59 <field name="topic">Alabama Cooperative Extension Service photos</field>
60 <field name="fulltopic">Alabama Cooperative Extension Service photos</field>
61 <!-- End hard coded values -->
62
63 <!-- Condense repetitive dc:description elements into one <field></field> -->
64 <field name="description">
65 <xsl:for-each select="dc:des
66 <xsl:value-of select="."
67 </xsl:for-each>
68 </field>
69
70 <!-- Condense all oai_dc:dc elements into one <field></field> -->
71 <!-- I assume this is for search purposes within VuFind- jdg -->
72 <field name="allfields">
73 <xsl:for-each select="*"
74 <xsl:value-of select="."/>
75 </xsl:for-each>
76 </field>
77
78 <!-- Call all other field templates matching all children under oai_dc:dc -->
79 <xsl:apply-templates select="**"/>
80 </xsl:template>
81
82 <!--
83 Define each field you want in the destination document below here as a xsl:template
84 List of possible Solr fields is available at:
85 http://vufindtest.lib.auburn.edu:8080/solr/biblio/admin/file/?file=schema.xml
86 -->
87
88 <!-- Match the first dc:identifier to generate a unique ID for it -->
89 <xsl:template match="dc:identifier[1]">
```

Collection Information

```
C:\Documents and Settings\coatem\Deskto\VOAltoVuFind\AU\AUautest_oai_vufind_JG1.xsl - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
AUautest_oai_vufind_JG1.xsl
83 Define each field you want in the destination document below here as a xsl:template
84 List of possible Solr fields is available at:
85 http://vufindtest.lib.auburn.edu:8080/solr/biblio/admin/file/?file=schema.xml
86 -->
87
88 <!-- Match the first dc:identifier to generate a unique ID for it -->
89 <xsl:template match="dc:identifier[last()]">
90   <xsl:variable name="auId" select='substring-after(., "http://content.lib.auburn.edu:81/u?autest,")' />
91   <field name="id">
92     <xsl:if test='$auId != ""'>
93       <xsl:text>AUautest</xsl:text><xsl:value-of select='$auId' />
94     </xsl:if>
95   </field>
96   <field name="url">http://content.lib.auburn.edu/u?autest,<xsl:value-of select='$auId' />
97   </field>
98   <xsl:if test='$auId != ""'>
99     <field name="thumbnail">http://content.lib.auburn.edu/utls/getthumbnail/collection/autest/id/<xsl:value-of select=
100     '$auId' /></field>
101   </xsl:if>
102 </xsl:template>
103
104 <!-- First creator mapped to first author. Cannot repeat in Solr -->
105 <xsl:template match="dc:creator[1]">
106   <field name="author">
107     <xsl:value-of select="." />
108   </field>
109 </xsl:template>
110
111 <!--
112 <xsl:
113   <field name="author2">
114     <xsl:value-of select="." />
115   </field>
116 </xsl:template>
117
118 <!-- Pull the first title for the title <field></field> -->
119 <xsl:template match="dc:title[1]">
120   <field name="title">
121     <xsl:value-of select="." />
122   </field>
123 </xsl:template>
```

Item Identification Information:
Item URL, Thumbnail URL, Collection Set Name



Step 3: Customize test.bat file. Run it.

```
java -jar AUOAltoVufind2.jar -b  
http://content.lib.auburn.edu:81/cgi-bin/oai.exe  
-f AUautest_oai_vufind_JG1.xsl -s autest -S -C
```



```
C:\Documents and Settings\coatem\Deskto\AOAItoVuFind\AU\TmpDir\4292013-133635\TmpFile1.xml - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
tmpFile1.xml tmpFile1.xml
1 <?xml version="1.0" encoding="UTF-8" ?>
2 <OAI-PMH xmlns="http://www.openarchives.org/OAI/2.0/"
3     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4     xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/
5     http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
6 <responseDate>2013-05-29T18:36:31Z</responseDate>
7 <request verb="ListRecords" metadataPrefix="oai_dc" set="autest">http://content.lib.auburn.edu:81/cgi-bin/oai.exe</request>
8 <ListRecords>
9   <record>
10     <header>
11       <identifier>oai:content.lib.auburn.edu:autest/0</identifier>
12       <timestamp>2010-05-11</timestamp>
13       <setSpec>autest</setSpec>
14     </header>
15     <metadata>
16       <oai_dc:dc
17         xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/"
18         xmlns:dc="http://purl.org/dc/elements/1.1/"
19         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
20         xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/oai_dc/
21         http://www.openarchives.org/OAI/2.0/oai_dc.xsd">
22         <dc:title>County agents and other extension leaders</dc:title>
23         <dc:description>Caption: "A group portrait of county agents and other Alabama Cooperative Extension Service leaders
24         with Alabama Farm Bureau leaders. Place: Montgomery, Alabama. Date: April 15, 1922. Fred Stewart is the last man on the
25         right on the front row." April 15, 1922.</dc:description>
26         <dc:date>1922-04-15</dc:date>
27         <dc:coverage>Montgomery Co. (Ala.)</dc:coverage>
28         <dc:creator>Unknown</dc:creator>
29         <dc:publisher>Auburn University Libraries</dc:publisher>
30         <dc:type>Image</dc:type>
31         <dc:format>JPEG</dc:format>
32         <dc:identifier>http://www.lib.auburn.edu/archive/find-aid/071p/ ; http://www.lib.auburn.edu/archive/find-aid/071.htm
33         </dc:identifier>
34         <dc:identifier>71.12.1.1</dc:identifier>
35         <dc:source>ACES (Alabama Cooperative Extension System) Records, RG 71: PHOTOGRAPHS, 1920s-1960s</dc:source>
36         <dc:source>Auburn University. Special Collections and Archives</dc:source>
37         <dc:relation>http://www.lib.auburn.edu/sca/ ; http://www.lib.auburn.edu/archive/find-aid/071p/ ;
38         http://www.lib.auburn.edu/archive/find-aid/071p/agents/</dc:relation>
39         <dc:rights>This image is the property of the Auburn University Libraries and is intended for non-commercial use. Users
```

OAI Output File



```

1 <?xml version="1.0" encoding="UTF-8" ?>
2 <add xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:d="http://www.openarchives.org/OAI/2.0/" xmlns:oai_dc="
  http://www.openarchives.org/OAI/2.0/oai_dc/"
3 <doc>
4 <field name="format">Electronic</field>
5 <field name="collection">Alabama Cooperative Extension Service Photographs Collection</field>
6 <field name="building">Auburn University Digital Library</field>
7 <field name="publisher">Auburn University Libraries</field>
8 <field name="topic">Alabama Cooperative Extension Service photos</field>
9 <field name="fulltopic">Alabama Cooperative Extension Service photos</field>
10 <field name="description">Caption: 'A group portrait of county agents and other Alabama Cooperative Extension Service leaders with
  Alabama Farm Bureau leaders. Place: Montgomery, Alabama. Date: April 15, 1922. Fred Stewart is the last man on the right on the
  front row.' April 15, 1922.JPEG image from black-and-white photograph.</field>
11 <field name="allfields">County agents and other extension leadersCaption: "A group portrait of county agents and other Alabama
  Cooperative Extension Service leaders with Alabama Farm Bureau leaders. Place: Montgomery, Alabama. Date: April 15, 1922. Fred
  Stewart is the last man on the right on the front row." April 15, 1922.1922-04-15Montgomery Co. (Ala.)UnknownAuburn University
  LibrariesImageJPEGhttp://www.lib.auburn.edu/archive/find-aid/071p/ ; http://www.lib.auburn.edu/archive/find-aid/071.htm
  71.12.1.IACES (Alabama Cooperative Extension System) Records, RG 71: PHOTOGRAPHS, 1920s-1960sAuburn University. Special
  Collections and Archiveshttp://www.lib.auburn.edu/sca/; http://www.lib.auburn.edu/archive/find-aid/071p/;
  http://www.lib.auburn.edu/archive/find-aid/071p/agents/This image is the property of the Auburn University Libraries and is
  intended for non-commercial use. Users of the image are asked to acknowledge the Auburn University Libraries. For information
  about obtaining high-resolution copies of this and other images in this collection, please contact the Auburn University Libraries
  Special Collections & Archives Department at archive@auburn.edu or (334) 844-1732.JPEG image from black-and-white
  photograph.Alabama Cooperative Extension Service -- Officials and employees; County agricultural agents -- AlabamaAlabama;
  Agricultural Extension ServicesengNicol, Bethhttp://content.lib.auburn.edu:81/u?/autest_0</field>
12 <field name="title">County agents and other extension leaders</field>
13 <field name="author">Unknown</field>
14 <field name="fulltopic">Alabama Cooperative Extension Service -- Officials and employees; County agricultural agents -- Alabama
  </field>
15 <field name="fulltopic">Alabama; Agricultural Extension Services</field>
16 <field name="id">AVautest0</field>
17 <field name="url">http://content.lib.auburn.edu/u?/autest_0</field>
18 <field name="thumbnail">http://content.lib.auburn.edu/utills/getthumbnail/collection/autest/id/0</field>
19 </doc>
20 <doc>
21 <field name="format">Electronic</field>
22 <field name="collection">Alabama Cooperative Extension Service Photographs Collection</field>
23 <field name="building">Auburn University Digital Library</field>
24 <field name="publisher">Auburn University Libraries</field>

```

OAI Output, Transformed



Step 4: Customize import.bat file. Run it.

```
java -jar AUOAltoVufind2.jar -b  
http://content.lib.auburn.edu:81/cgi-bin/oai.exe  
-f AUautest_oai_vufind_JG1.xsl -s autest -S -C -o  
http://alamosindex.lib.auburn.edu:8080/solr/bi  
blio/update
```



Search All Fields Find

Narrow Search

- Contributor: Auburn University Libraries
- Collection: Alabama Cooperative Extension Service Photographs Collection

Contributor

Auburn University Libraries (823)

Collection

Alabama Cooperative Extension Service Photographs Collection (823)

Author

- Unknown (755)
- Lowery, J. C. (48)
- Landrum, G. W. (George Washington), 1880-1955 (6)
- Green, E. H. (4)
- Poland, Carter D. (2)
- more...

Topic

Alabama Cooperative Extension Service photos (823)

Showing 1 - 20 of 823 Results for Sort Relevance

County agents and other extension leaders
by Unknown **Publisher:** Auburn University Libraries
Electronic

Ira D. Vail and E. C. Bledsoe, 1928
by Green, E. H. **Publisher:** Auburn University Libraries
Electronic

Mrs. Cheeseman's new force pump and bathtub, 1928
by Unknown **Publisher:** Auburn University Libraries
Electronic

G. E. Riddell holds a sixty-pound watermelon grown by W. C. Worth...



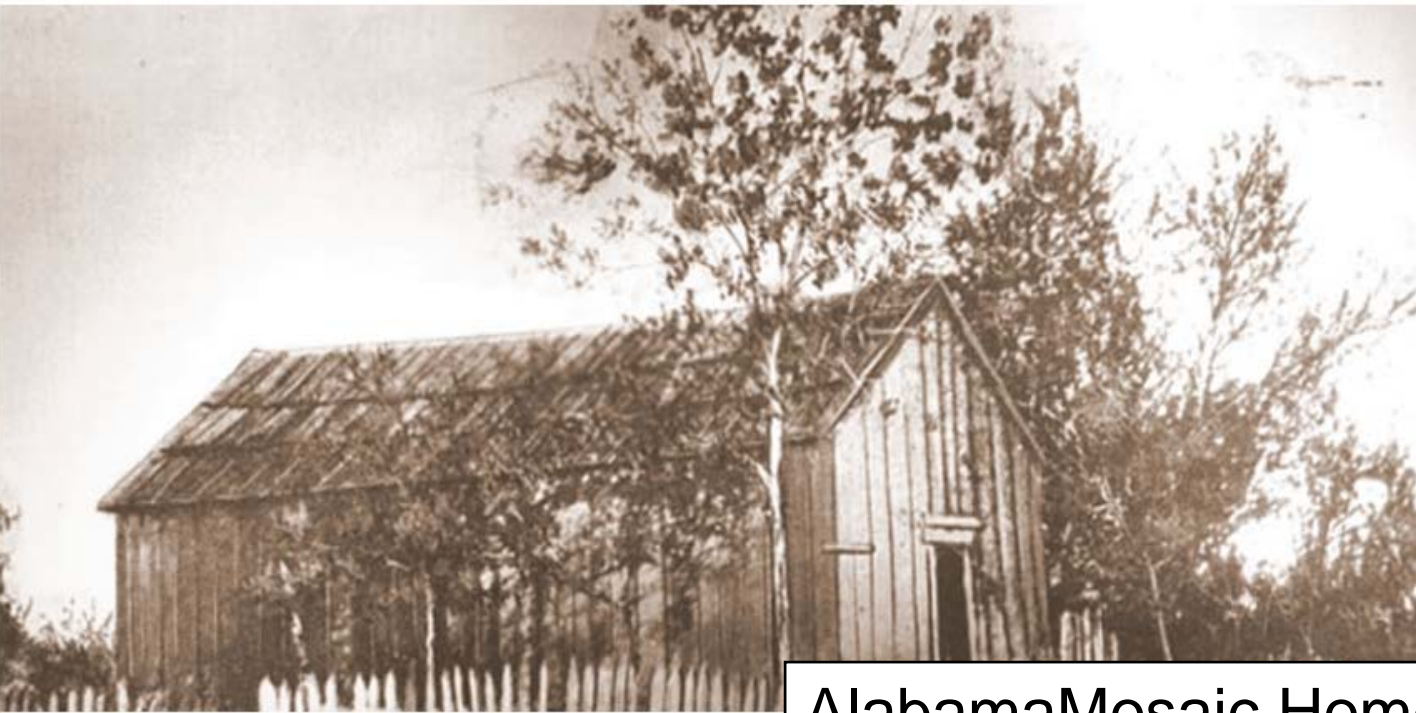
After All That ... What Does the Index Look Like?





About Alabama Mosaic	Browse All collections	Contributors Our partners	Resources Digital Preservation	FAQs Questions & Answers	Join Us Be a Contributor	Contact Info and Support
-------------------------	---------------------------	------------------------------	-----------------------------------	-----------------------------	-----------------------------	-----------------------------

Search All Fields



AlabamaMosaic Home Page

About AlabamaMosaic

Search results : 1205 item(s) for : **Alabama River** [search again](#)



1. 1865 burning of Elyton by Yankees is recounted



2. 1915 Letter from Dr. Edgar P. Hogan to Sidney J. Bowie, Esq.



3. 1922-1926 Scrapbook



4. "A Roof Over Their Heads."



5. A Trip from Talbotton Georgia to Irvinton (Now Eufaula) Alabama



6. A view from the Alabama-side of the Chattahoochee River looking south in Eufaula, Alabama.



7. Aerial photograph of Horseshoe Bend on the Tallapoosa River.



8. Aerial view of downtown Montgomery, Alabama, from the Alabama River to the Capitol.



9. Aerial view of Elba, Alabama, after the Pea River flooded.



10. Aerial view of Guntersville Dam of the Tennessee Valley



11. Aerial view of Horseshoe Bend in Tallapoosa County, Alabama.



12. Aerial view of Lewis Smith Dam of the Alabama Power Company, on the Sipsey Fork of the Warrior River near Jasper.

MultiSite Server: Search Results for Alabama River



- About
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- Resources
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Search All Fields Find

Narrow Search

- Contributor**
 - Alabama Department of Archives and History (535)
 - University of Alabama (313)
 - Auburn University Libraries (291)
 - University of South Alabama Archives, McCall Library (48)
 - Troy University Library (23)
 - more...
- Collection**
 - Alabama Photographs and Pictures Collection (453)
 - Maps from the Treasure Room Collection (249)
 - Hugh Davis Papers (225)
 - Alabama Textual Materials Collection (81)
 - Eric Overbey Collection (48)
 - more...
- Author**
 - Alabama. State Highway Dept. Surveying and Mapping Division (43)
 - Unknown (43)
 - Davis, William F. (37)
 - Atlanta (Ga.). Construction Dept. (33)
 - Perkins family (32)
 - more...

Showing 1 - 20 of 1272 Results for alabama river Sort Relevance

- Alabama River. Publisher: Alabama Department of Archives and History Electronic
- Alabama River at Montgomery, Alabama. Publisher: Alabama Department of Archives and History Electronic
- Alabama River at Montgomery, Alabama. Publisher: Alabama Department of Archives and History Electronic
- Alabama River at Selma, Alabama. Publisher: Alabama Department of Archives and History Electronic

VuFind Index: Search Results for Alabama River



Holdings: - Alabama Mosaic - Mozilla Firefox

File Edit View History Bookmarks Tools Help

alamosindex.lib.auburn.edu/vufind/Record/ADAHphoto7649

Troy University Public ... Rainy Mood Home - Systems AULibraries Intranet SysWiki Vers. 6.0 Cdm Adminis... Vers. 6.0 Cdm Web C... AlabamaMosaic AlaMos Cdm Administr...

Holdings: - Alabama Mosaic



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Search All Fields

Alabama River at Selma, Alabama.



Format: Electronic

Link: <http://digital.archives.alabama.gov/cdm/ref/collection/photo/id/7649>

Published: Alabama Department of Archives and History

Subjects: [Alabama Photographs and Pictures](#)
[Bodies of water](#); [Buildings](#); [Rivers](#); [Alabama River \(Ala.\)](#); [Selma \(Ala.\)](#); [Dallas County \(Ala.\)](#)



Who Does What?





- **Programmers:**
 - Created VuFind instance
 - Created XSLT file templates
 - Created Java tools and bat file templates
 - Manage database at server level
 - Trouble-shoot as needed
- **Digital Projects Librarian:**
 - Monitor changes in native collections
 - Create XSLTs and bat files for new collections/update for existing collections
 - Harvest collections as needed
 - Trouble-shoot as needed



How Did It All Work Out?

AGRONOMY
ALA. EXTENSION SERVICE
AUBURN ALA.

ESSENTIALS FOR SUCCESS WITH HAIRY VETCH AND AUSTRIAN WINTER PEAS.

1. PLANT EARLY - SEPTEMBER 15 TO OCTOBER 15.
2. DOUBLE INOCULATE.
3. PHOSPHATE - APPLY NOT LESS THAN 400 LBS PER ACRE. IT IS PREFERABLE TO USE BASIC SLAC.
4. PLANT NOT LESS THAN 20 LBS OF HAIRY VETCH OR 30 LBS. OF AUSTRIAN WINTER PEAS.
5. DRILL THE SEED. THIS CAN BE DONE WITH A THREE ROW DRILL, A ONE ROW DRILL, OR A DISTRIBUTOR. CONSULT YOUR COUNTY AGENT ABOUT PROPER METHOD OF PLANTING THESE CROPS.

WHY GROW HAIRY VETCH OR AUSTRIAN WINTER PEAS

1. A CROP OF HAIRY VETCH OR AUSTRIAN WINTER PEAS WILL EASILY DOUBLE A 15 TO 10 BUSHEL PER ACRE CORN YIELD.
2. HAIRY VETCH OR AUSTRIAN WINTER PEAS WILL ADD AS MUCH NITROGEN TO THE SOIL AS 400 LBS. OF NITRATE OF SODA AND AS MUCH HUMUS AS FIVE TONS OF STABLE MANURE.
3. BY GROWING HAIRY VETCH OR AUSTRIAN WINTER PEAS TO TURN UNDER TWO WEEKS BEFORE PLANTING CORN, ENOUGH CORN CAN BE MADE TO SUPPLY THE NEEDS OF ALABAMA.
4. HAIRY VETCH OR AUSTRIAN WINTER PEAS MEANS RICHER SOILS AND PROSPEROUS FARMERS.



NO VETCH
480 POUNDS
SEED COTTON
PER ACRE

AFTER VETCH
836 POUNDS
SEED COTTON
PER ACRE

NO VETCH
15-BUSHEL-CORN
PER
- ACRE -

CORN-AFTER-VETCH
MADE 37-BUSHEL
- PER-ACRE -
INCREASE 22-BUSHEL
- PER-ACRE -

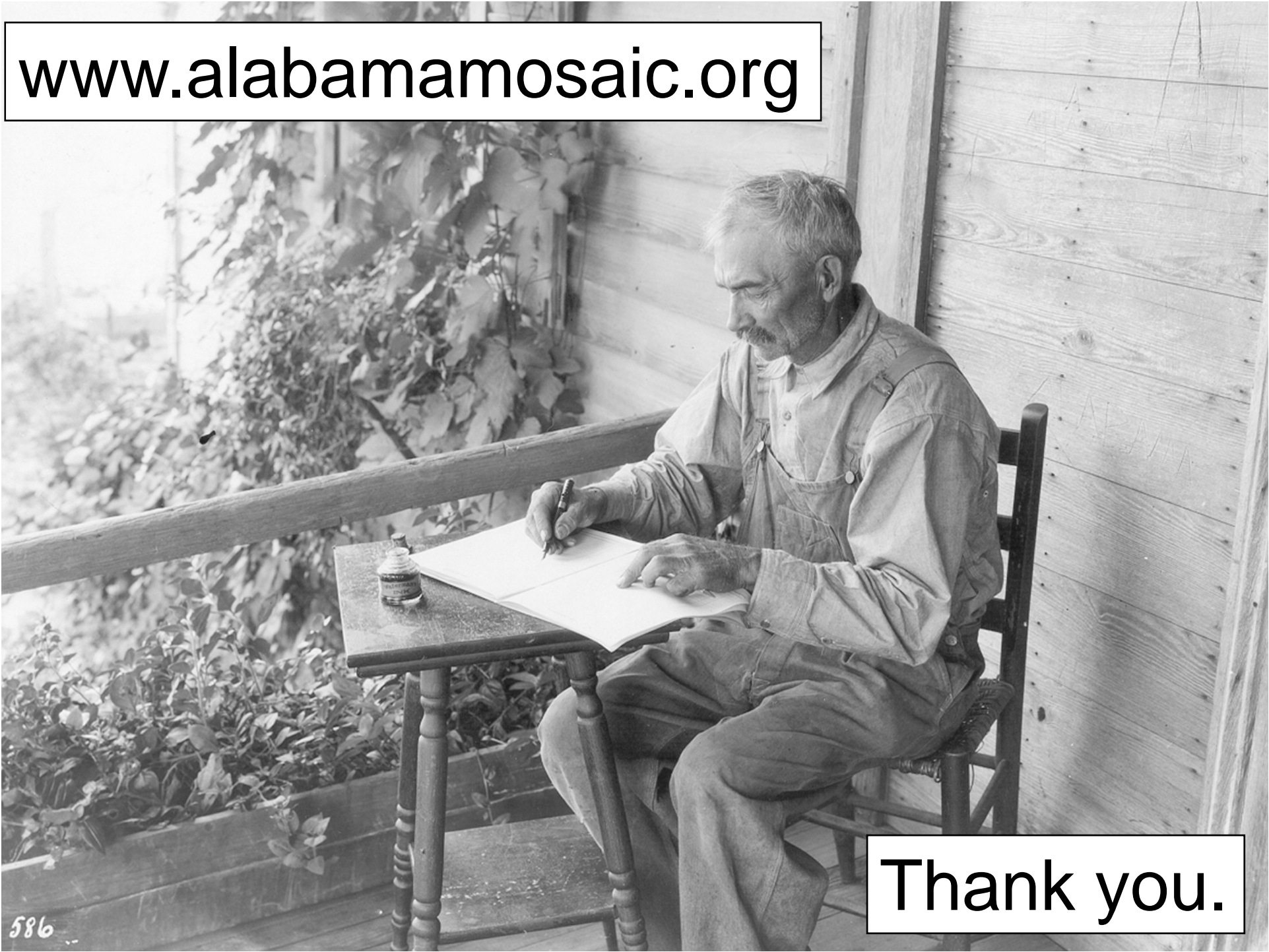
SEXTON STUDIO
MONTGOMERY, ALA.



- AlabamaMosaic page views tripled
- Number of visits lasting 10 sec or less went down to 49% (from 65%)
- Traffic from AlabamaMosaic to Auburn's collections went up to 4.7% (from 0.1%)
- People tell us they like the new look and the new search function.
- When OCLC discontinued support for MSS, VuFind was already in place.
- We have indexed the UA Acumen collection and an Auburn dSpace collection, along with all the CONTENTdm collections



www.alabamamosaic.org



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Thank you.