

The logo for Syracuse University Library is positioned on the left side of the slide. It features the words "SYRACUSE UNIVERSITY" in a white, sans-serif font, with "Library" written below it in a large, elegant, red script font. The background of the slide is a collage of images: a person working at a computer in a library, a large orange building, and a faint circular seal with the text "SYRACUSE UNIVERSITY" and "SUOS CULTORES SCIENTIA CORPUS".

SYRACUSE UNIVERSITY

Library

Creating a Digital Scholarly Edition in the Humanities: Syracuse University's *Marcel Breuer Digital Archive*

April 4, 2011

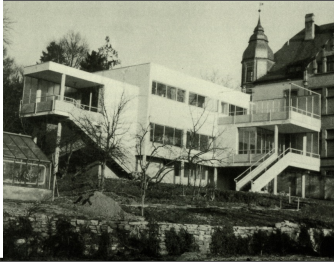
CNI Spring 2011 Task Force Meeting

Chronology

Bauhaus: 1919-28



Private Practice: 1928-35



London: 1935-37



Harvard: 1937-41



Private Practice: 1941 -



1955

End of 1st Phase of Project



Chronology

Bauhaus: 1919-28



Private Practice: 1928-35



London: 1935-37



Harvard: 1937-41



Private Practice: 1941 -



1955

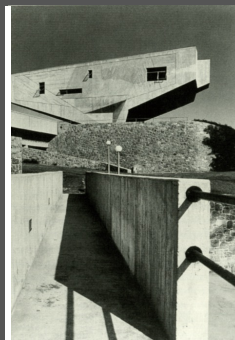
End of 1st Phase of Project



1966



1962



1959



1957



1981

Partner Institutions



30,000 Objects



62 Objects



708 Objects



515 Objects



712 Objects



130 Objects



200 Objects



272 Objects

Partners Still in Negotiations

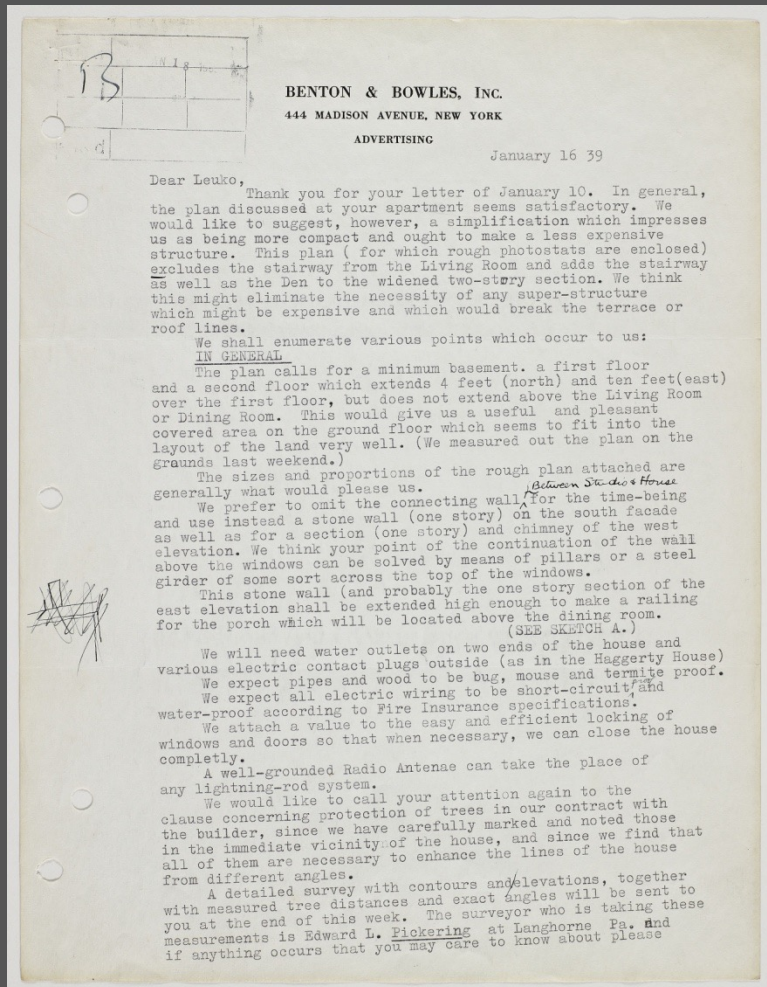


225 Objects

Copyright

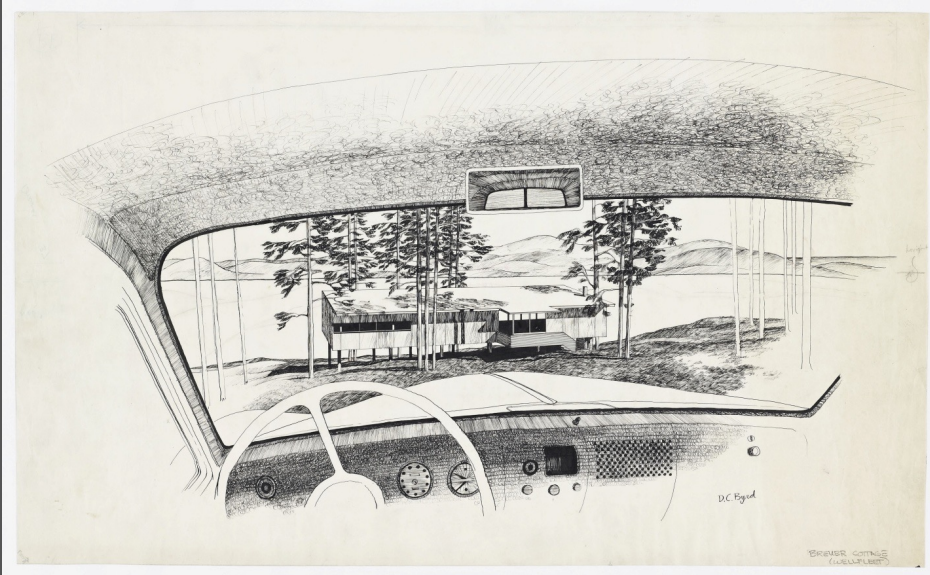
- Contents made available for use in education, scholarship, research, teaching, and private study
- Syracuse University does not hold the copyright for many of the materials made available in the digital archive
- Permission of the copyright owners required for distribution, reproduction, or other use
- User is solely responsible for determining the copyright status of any material he or she may wish to use
- **Syracuse University is eager to hear from any copyright owners who believe the website has not properly attributed their work or has used it without authorization.**

Types of Materials in the Collection

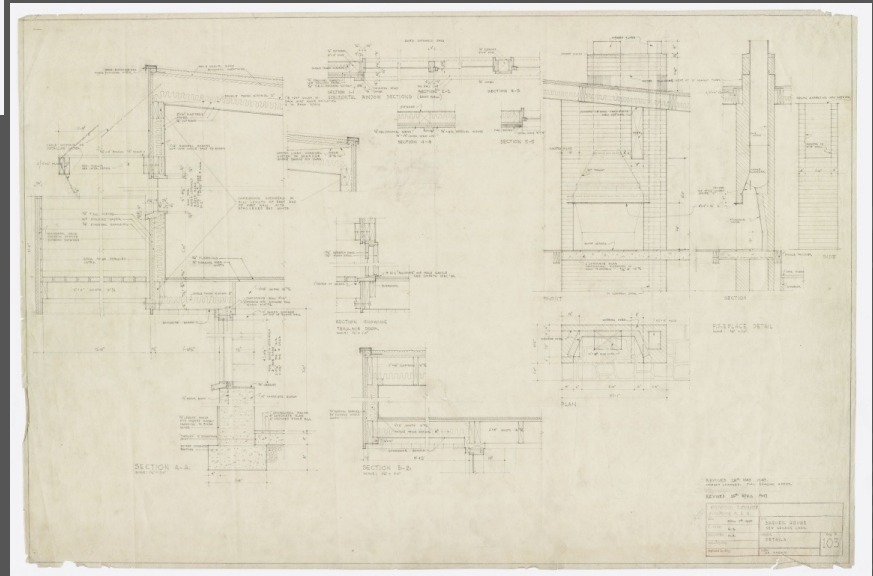


Fischer House and Studio, ca. 1939

Types of Materials in the Collection



Wellfleet Cottage, ca. 1948



Digitization Standards

- **TIFF files: Archival use**
 - 600 dpi for correspondence
 - 300 dpi or best resolution for drawings
- **JPEG2000 files: Access images**
- **Thumbnails**



Processing: Standard Series & Subseries

Personal Papers

Biographical Information
Diaries
Correspondence
Student Work
Travel
Photographs
Unique Subseries

Faculty Papers

Administrative
Course Materials
Research Notes
Reference Files
Students' Work
Unique Subseries

Project Records

Project Lists
Files
Photographs
Drawings
Unique Subseries

Professional Papers

Correspondence
Writings
Presentations
Associations & Committees
Awards
Research Notes
Reference Files
Unique Subseries

Office Records

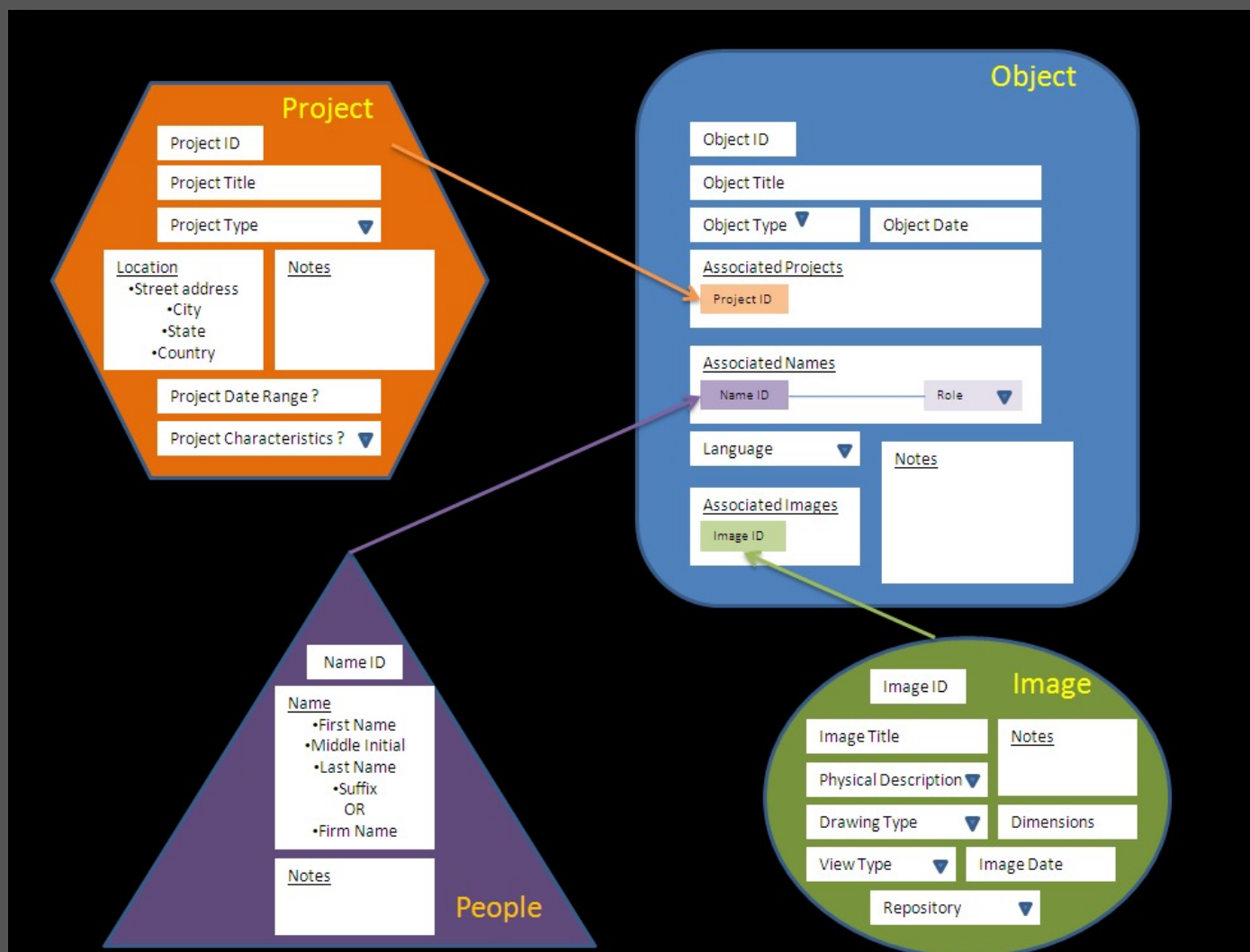
Administrative
Correspondence
Financial Records
Public Relations
Photographs
Presentation Materials
Clippings & Scrapbooks
Unique Subseries

Art & Artifacts

Additional Donations

From Waverly Lowell & Tawny Ryan Nelb,
*Architectural Records: Managing Design and
Construction Records*, p. 174-175.

Metadata Relationships



Metadata Workflow

Excel Spreadsheets

The screenshot shows a Microsoft Excel spreadsheet titled "2014-2015 - 1st semester". The spreadsheet is organized into columns for student information and scores. The columns are labeled as follows:

- Student Name**: The first column, containing the names of the students.
- Class**: The second column, containing the class number.
- Section**: The third column, containing the section number.
- Subject**: The fourth column, containing the subject name.
- Score**: The fifth column, containing the score for each subject.

The data is organized into rows, with each row representing a student's performance across different subjects. The spreadsheet is viewed in "Normal" style, and the "Formulas" tab is active in the ribbon.

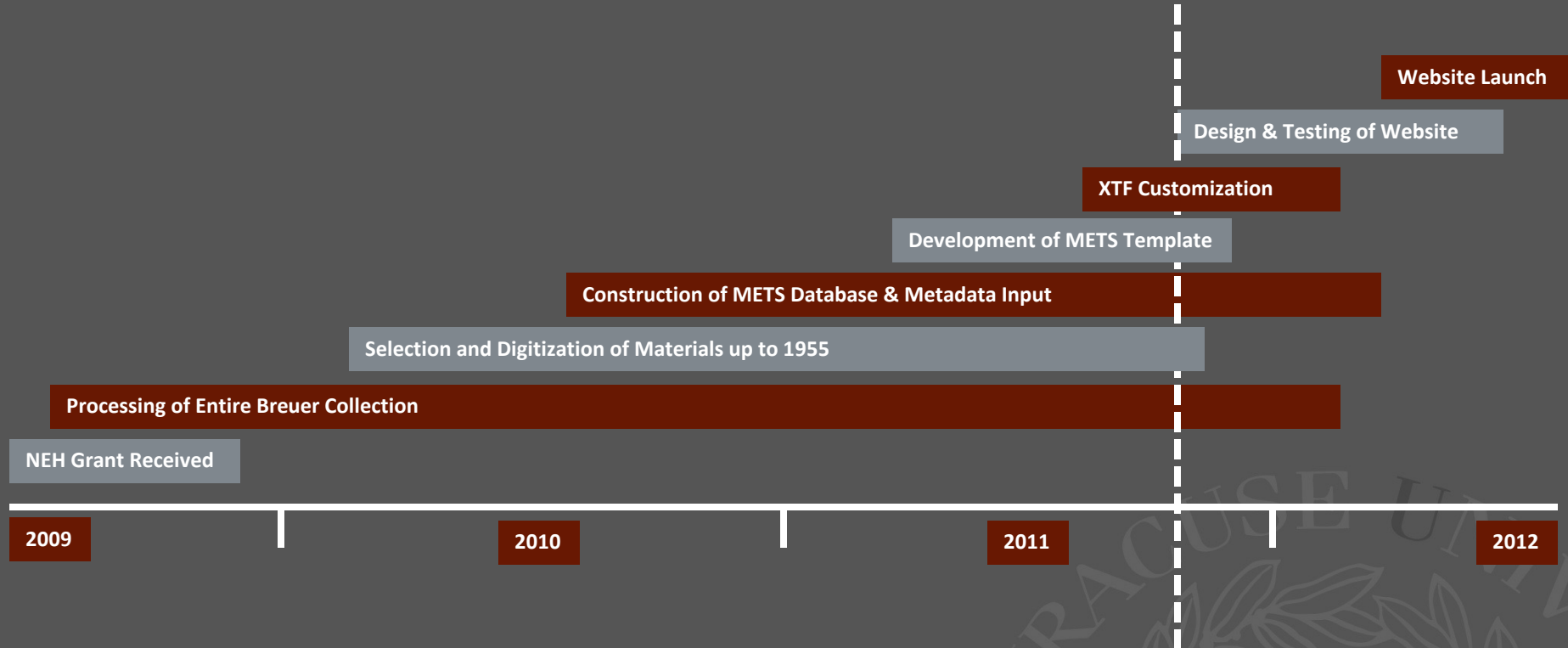
Database

[illegible]

METS Objects

[illegible]

Project Timeline



Technical Background...



Brief Introductions

- **METS Database Application**

- Archivist Interface
- PHP, MySQL
- Metadata and Archival Objects

- **Djatoka Image Server**

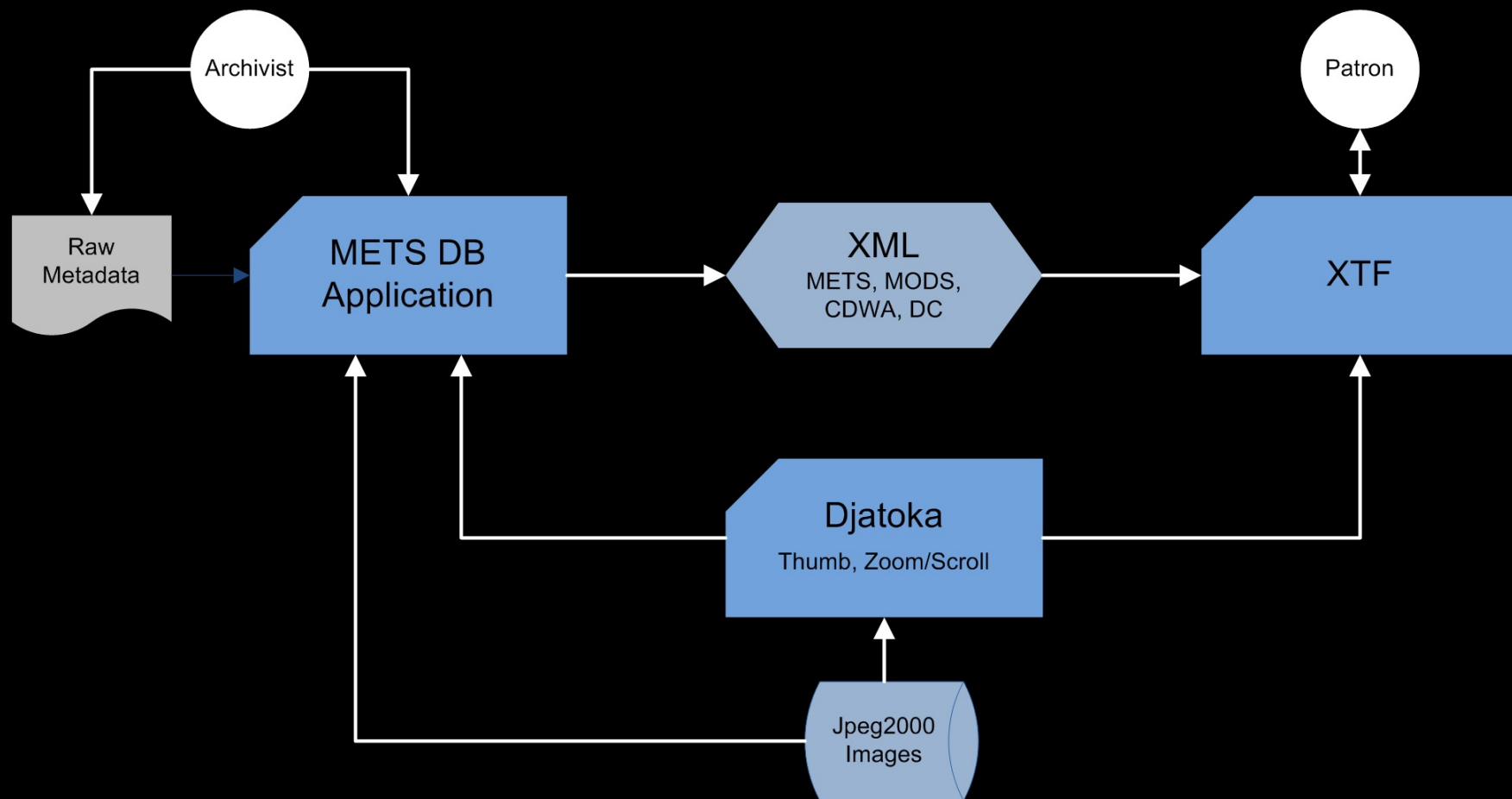
- Dynamic JPEG2000 Down-sampling Server
- Tomcat, Java
- OpenLayers Plugin: Zoom and Scroll

- **eXtensible Text Framework (XTF)**

- Patron Access
- Tomcat, Java
- Faceted Index



System Overview



METS Database Application

- **PHP/MySQL Web Application**
 - Jeremy Morgan, Programmer, Syracuse University Library
- **Supports LDAP & Local Authentication**
- **Strong emphasis on controlled vocabulary through normalized database structure**
- **Organized by the four main tables:**
 - Objects
 - Images
 - Projects
 - People/Firms
- **Bulk metadata import via tab delimited spreadsheet**
- **Exports index ready XML**



METS DB: People/Firms

- Last, Middle, First, Prefix
- Firm Name
- Alternate Name
- Roles (managed here, linked in object)
- Notes (internal usage)



METS Manager

Objects Images Projects **People / Firms** Users

Manage New Roles

New Person / Firm

Last	<input type="text" value="Breuer"/>	*
Middle	<input type="text" value="Lajos"/>	*
First	<input type="text" value="Marcel"/>	*
Prefix	<input type="text"/>	*
Firm Name	<input type="text"/>	*
Alternate Name	<input type="text" value="Lajkó"/>	*
Notes:	<div></div>	
<div>Cancel Save</div>		

METS DB: Projects

- **Project Name**
- **Alternate Name**
- **Project Types**
- **Location**
- **Date**
- **Hyman/Driller Catalog Numbers**
- **Notes (internal usage)**



METS Manager

[Objects](#) [Images](#) **[Projects](#)** [People / Firms](#) [Users](#)[Manage](#) [New](#) [Types](#)

Edit Project

Project Name	<input type="text" value="Breuer House"/>	*
Alternate Name	<input type="text" value="Breuer House I/Woods End colony"/>	*
Project Types	<div><input type="button" value="add"/> <input type="text" value="Residential"/> <input type="button" value="remove"/></div>	*
Location	<div>Street 1 <input type="text"/></div> <div>Street 2 <input type="text"/></div> <div>City <input type="text" value="Lincoln"/></div> <div>State <input type="text" value="MA"/></div> <div>Country <input type="text" value="USA"/></div>	
Project Date	<div><input type="text" value="1939"/> - <input type="text"/> - <input type="text"/> → <input type="text"/> - <input type="text"/> - <input type="text"/> (YYYY-MM-DD)</div> <div><input checked="" type="checkbox"/> Estimated <input checked="" type="checkbox"/> Estimated</div>	*
Hyman Catalog Number	<input type="text" value="149"/>	
Driller Catalog Number	<input type="text" value="23"/>	
Notes:	<div></div>	

METS DB: Images

- **Image Title**
- **Physical Description**
- **Repository**
- **Drawing Types**
- **View Types**
- **Date (original)**
- **Date (digital)**
- **Dimensions (original)**
- **Dimensions (digital, pixels)**
- **General Technical Information**
- **Notes (internal usage)**



Objects **Images** Projects People / Firms Users

Manage Drawing Types Physical Descriptions Repositories View Types

Image Manager

Path: / images / T579

T579_003.tif
T579_004.tif
T579_005.tif
T579_006.tif
T579_007.tif
T579_008.tif
T579_009.tif
T579_010.tif
T579_011.tif
T579_012.tif
T579_013.tif
T579_014.tif
T579_015.tif
T579_016.tif
T579_017.tif
T579_018.tif
T579_019.tif
T579_020.tif
T579_021.tif

/T579/T579_005.tif

Image Title	Gymnasium Elevations (Dwg. No. 6)		
Physical Description	Diazo Print		*
Drawing Type	Working/Construction Drawing		
	<input type="button" value="add"/>	new	
View Types	Elevation	<input type="button" value="remove"/>	
	Detail	<input type="button" value="remove"/>	
Image Date	1954	- 02 - 15	(YYYY - MM - DD)
Dimensions	42 x 30		
Repository	Syracuse University		*
Image Notes	with red pencil annotations		
Date of Digital Image	2010	- 04 - 19	(YYYY - MM - DD) *
General Technical Information	Archival TIFFs: 300dpi, 24-bit Color, Professional Photography by *		
Pixel Dimensions of Digital Image	9316x7364 *		
<input type="button" value="Cancel"/> <input type="button" value="Save"/>			



METS DB: Objects

- Title
- Type
- Date
- Projects
- People / Firms
- Images
- Languages
- Enclosures (Objects inside of objects!)
- Tags (temporary, internal usage)
- Notes (internal usage)

METS Manager

[Objects](#) [Images](#) [Projects](#) [People / Firms](#) [Users](#)[Manage](#) [New](#) [Types](#) [Languages](#)

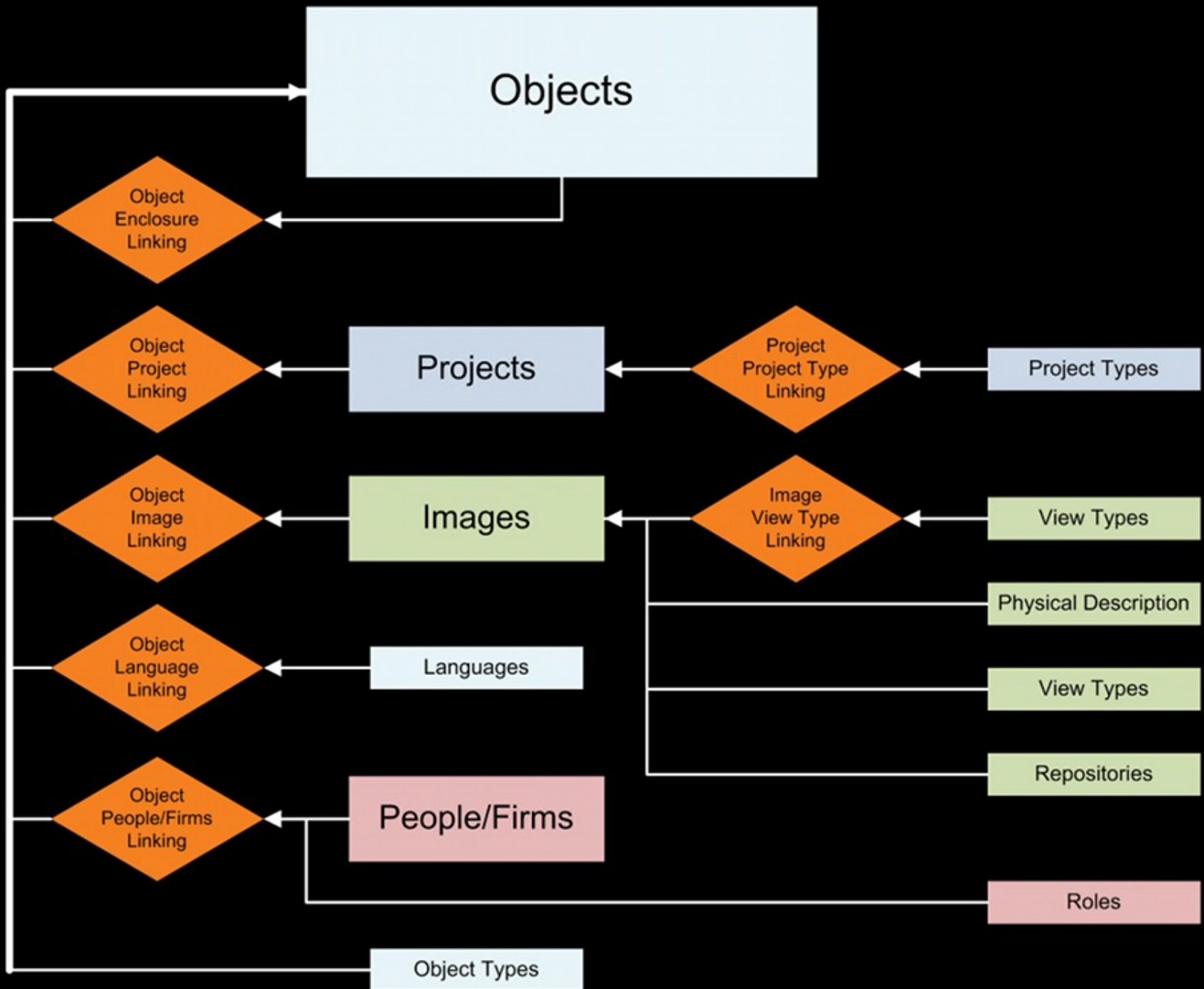
Edit Object

[Duplicate Object](#) | [View XML](#)

Title	<input type="text" value="Letter"/>	*
Type	<input type="text" value="Correspondence"/>	*
Object Date	<input type="text" value="1939"/> - <input type="text" value="10"/> - <input type="text" value="25"/> → <input type="text"/> - <input type="text"/> - <input type="text"/> (YYYY-MM-DD) <input type="checkbox"/> Estimated <input type="checkbox"/> Estimated	
Projects	<input type="button" value="add"/> new <input type="text" value="Breuer House"/> <input type="button" value="remove"/>	
People	<input type="button" value="add"/> new <input type="text" value="Breuer, Marcel, Lajos"/> <input type="text" value="Author"/> <input type="button" value="remove"/> <input type="text" value="Richards, J.M."/> <input type="text" value="Recipient"/> <input type="button" value="remove"/>	
Firms	<input type="button" value="add"/> new <input type="text" value="Architectural Review"/> <input type="text" value="Recipient"/> <input type="button" value="remove"/>	
Images	<input type="button" value="browse >"/> <input type="text" value="Box_05_Folder_014/02828-001"/> view remove	*
Languages	<input type="button" value="add"/> new <input type="text" value="English"/> <input type="button" value="remove"/>	
Enclosures	<input type="button" value="add"/>	
Tags:	<input type="text" value="02828"/>	

METS Database Diagram





Example XML Export (schema still being decided on)

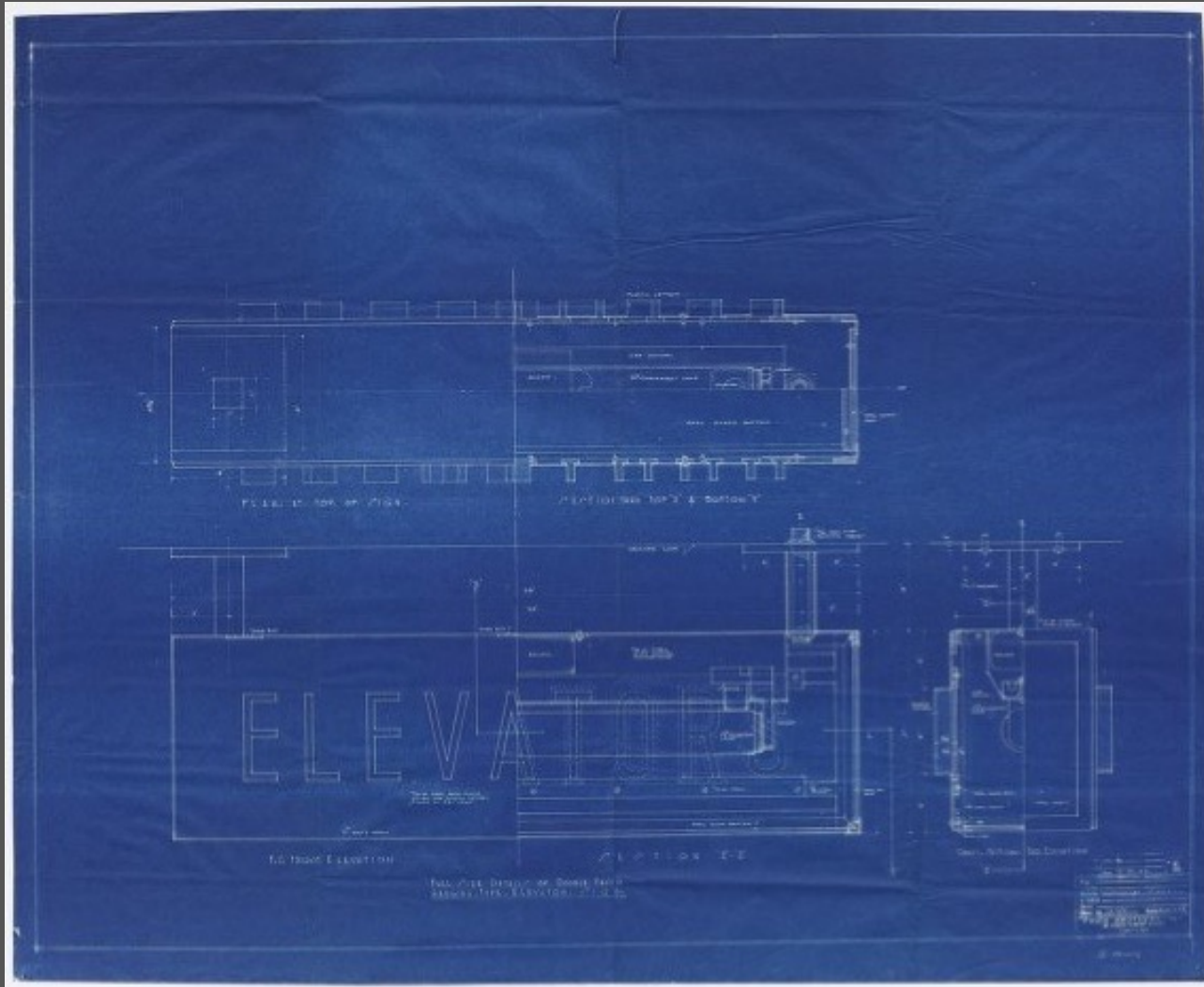


```
1 <?xml version="1.0" encoding="UTF-8"?>
2 < mets: mets xmlns: dc="http://purl.org/dc/elements/1.1/" xmlns: xs="http://www.w3.org/2001/XMLSchema"
3   xmlns: xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns: xlink="http://www.w3.org/1999/xlink"
4   xmlns: mets="http://www.loc.gov/METS/"
5   xsi: schemaLocation="http://www.loc.gov/METS/ http://www.loc.gov/standards/mets/mets.xsd"
6   OBJID="3587" LABEL="Baseball Stadium at Cartagena, Colombia (drawing) 1947" TYPE="image">
7   < mets: metsHdr CREATEDATE="2010-12-15T12:00:00.000-07:00"
8     LASTMODDATE="2010-12-15T12:00:00.000-07:00" RECORDSTATUS="NEW">
9     < mets: agent ROLE="EDITOR" TYPE="ORGANIZATION">
10       < mets: name>Syracuse University Library</ mets: name>
11     </ mets: agent>
12   </ mets: metsHdr>
13   < mets: dmdSec ID="dmd1">
14     < mets: mdWrap MIMETYPE="text/xml" MDTYPE="DC" LABEL="DC">
15       < mets: xmlData>
16         < dc: identifier>3587</ dc: identifier>
17         < dc: title>Baseball Stadium at Cartagena, Colombia (drawing)</ dc: title>
18         < dc: creator>Solano, Gabriel</ dc: creator>
19         < dc: creator>Gaitan Cortes, Jorge</ dc: creator>
20         < dc: creator>Ortega, Alvaro</ dc: creator>
21         < dc: date>1947</ dc: date>
22         < dc: subject>Professional Papers</ dc: subject>
23         < dc: type>Photograph</ dc: type>
24         < dc: rights>[Rights Statement]</ dc: rights>
25         < dc: language>Spanish</ dc: language>
26         < dc: description>[object:project + object:people + object:firms +
27           object:notes]</ dc: description>
28       </ mets: xmlData>
29     </ mets: mdWrap>
30   </ mets: dmdSec>
31   < mets: dmdSec ID="ead">
32     < mets: mdRef LOCTYPE="URL" MDTYPE="EAD" LABEL="Baseball Stadium at Cartagena, Colombia (drawing)"
33       xlink: href="[URL of POSTED EAD FILE]"/>
34   </ mets: dmdSec>
35   < mets: fileSec>
36     < mets: fileGrp USE="thumbnail image">
37       < mets: file ID="fid1" GROUPID="grp1" SIZE="125x103" MIMETYPE="image/jpeg">
38         < mets: FLocat LOCTYPE="URL" xlink: href="http://xtf.syr.edu/thumbnails/Box_16_Folder_016/00964-001.jpg" xlink: role="thumb
39       </ mets: file>
40     </ mets: fileGrp>
41     < mets: fileGrp USE="reference image">
42       < mets: file ID="fid2" GROUPID="grp1" SIZE="6253x5153" MIMETYPE="image/jpeg">
43         < mets: FLocat LOCTYPE="URL" xlink: href="http://xtf.syr.edu/jpeg2000/Box_16_Folder_016/00964-001.jp2" xlink: role="access"
44       </ mets: file>
45     </ mets: fileGrp>
46   </ mets: fileSec>
47   < mets: structMap>
48     < mets: div DMDID="dmd1" LABEL="Baseball Stadium at Cartagena, Colombia (drawing) 1947">
49       < mets: div LABEL="page 1">
50         < mets: div TYPE="thumbnail image">
51           < mets: fptr FILEID="fid1"/>
52         </ mets: div>
53       </ mets: div>
54     </ mets: structMap>
55 </ mets: mets>
```

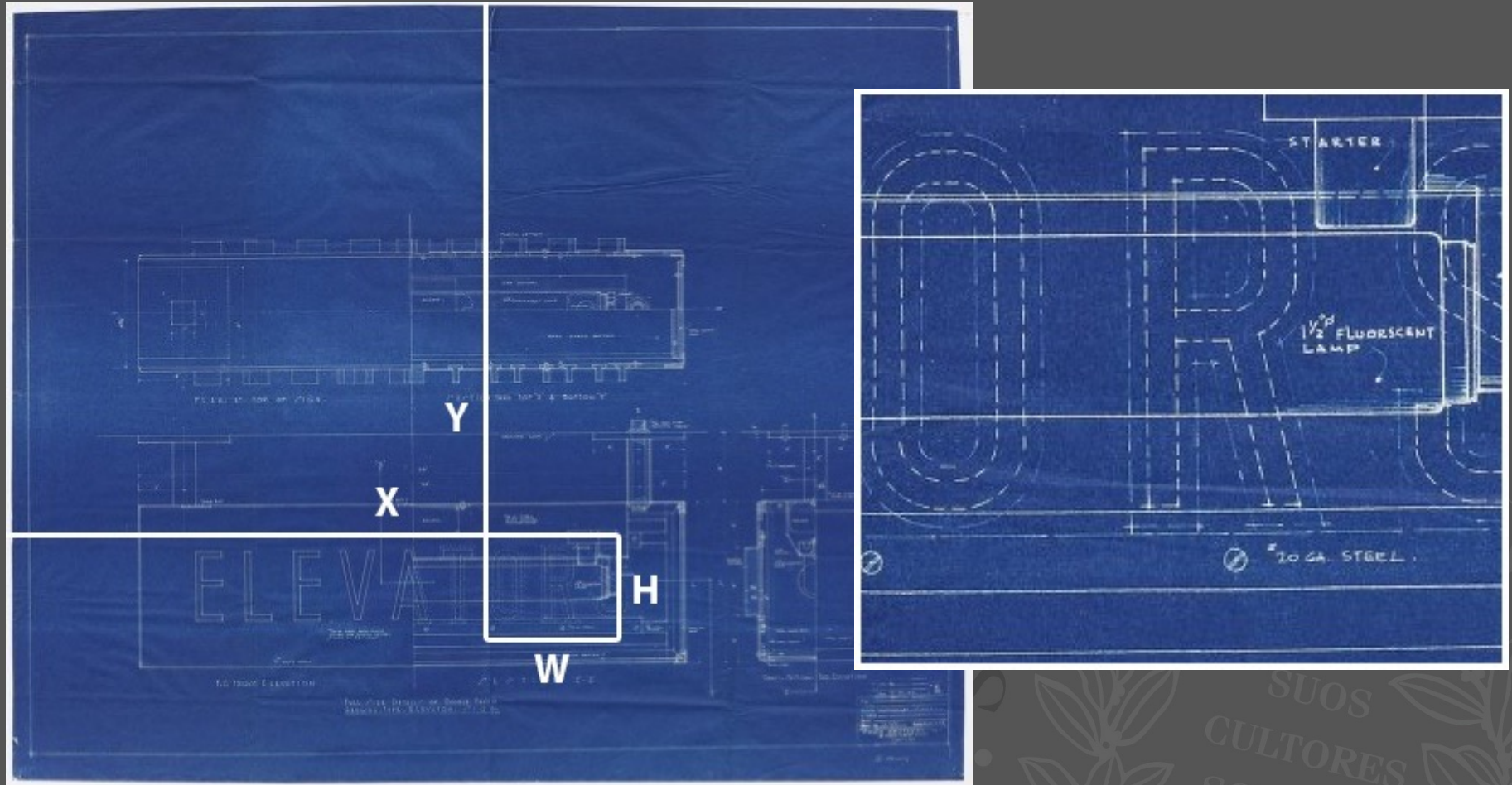
Djatoka Image Server

- **Tomcat (Java)**
- **Free, open source, GNU Licensed**
 - Los Alamos National Laboratory, Research Library
- **Consumes multi-resolution images**
 - JPEG2000, MrSID, Pyramid TIFF
- **Outputs lower resolution, compressed images**
 - PNG, JPEG, GIF, etc...
- **OpenURL interface**
- **Server-side cache support**

Djatoka: OpenURL



Djatoka: OpenURL



Djatoka: OpenURL

`http://[server]/adore-djatoka/resolver
?url_ver=Z39.88-2004
&rft_id=[JPEG2000 File]
&svc_id=info:lanl-repo/svc/getRegion
&svc_val_fmt=info:ofi/fmt:kev:mtx:jpeg2000
&svc.format=image/jpeg
&svc.level=3
&svc.rotate=0
&svc.region=[Y],[X],[H],[W]`



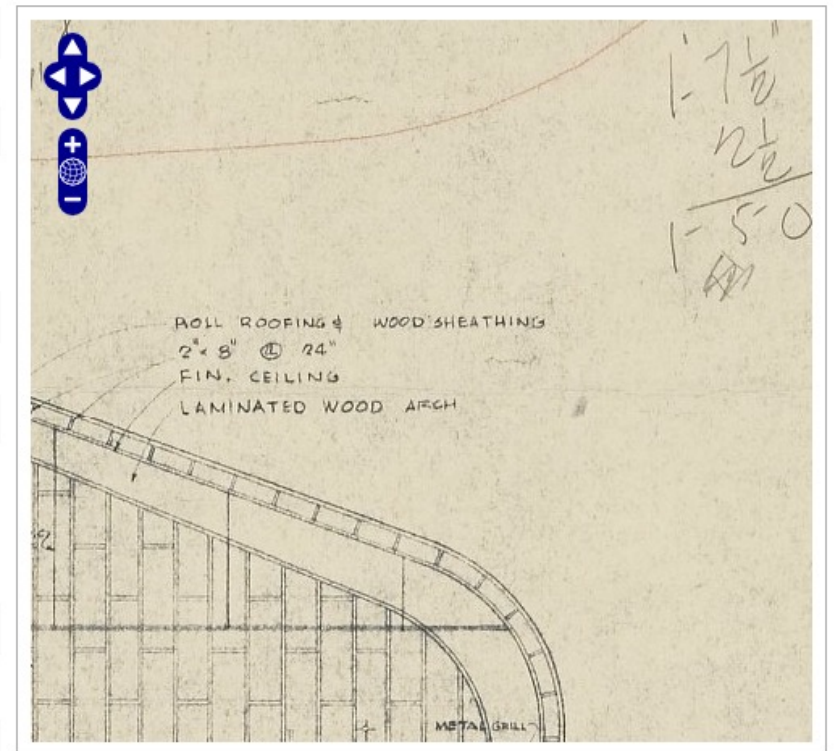
Djatoka: OpenURL

http://tomcat-server:8080/adore-djatoka/resolver?url_ver=Z39.88-2004&rft_id=/jp2k/blueprint_sign_elevators.jp2&svc_id=info:lanl-repo/svc/getRegion&svc_val_fmt=info:ofi/fmt:kev:mtx:jpeg2000&svc.format=image/jpeg&svc.level=3&svc.rotate=0&svc.region=5160,4656,257,290



Djatoka: OpenLayers Plugin

Image Title	Gymnasium Elevations (Dwg. No. 6)		
Physical Description	Diazo Print *		
Drawing Type	Working/Construction Drawing		
	<input type="button" value="add"/> new		
View Types	Elevation remove		
	Detail remove		
Image Date	1954	- 02	- 15 (YYYY - MM - DD)
Dimensions	42 x 30		
Repository	Syracuse University *		
Image Notes	<div>with red pencil annotations</div>		
Date of Digital Image	2010	- 04	- 19 (YYYY - MM - DD) *
General Technical Information	Archival TIFFs: 300dpi, 24-bit Color, Professional Photography by *		
Pixel Dimensions of Digital Image	9316x7364 *		
<input type="button" value="Cancel"/> <input type="button" value="Save"/>			



Djatoka: OpenLayers Plugin

- **AJAX (Asynchronous JavaScript and XML)**
- **Browser agnostic, no 3rd party plugins**
- **Automates openURLs to create tiled maps of smaller, lower quality images**
- **Google-map-like zoom and scroll**
- **Simple, easily customizable**



Djatoka: OpenLayers Plugin

- **Example of Dynamically Generated Image Map Grid
HTML Source Code
(via: Firebug Inspector)**



Page Title

Description

ing Type

add new

W Types remove

remove

age Date - - (YYYY - MM - DD)



cript DOM Net Cookies

erDiv < div#map_...ontainer < div#map_...Viewport < div#map.smallmap < body < html < iframe < td < tr < tbody < table < div#main_container < div#body_border <

<div id="map_OpenLayers_ViewPort" class="olMapViewport olControlDragPanActive olControlZoomBoxActive olControlNavigationActive height: 100%;">

<div id="map_OpenLayers_Container" style="position: absolute; z-index: 749; left: 94px; top: 29px;">

<div id="OpenLayers.Layer.OpenURL_2" class="olLayerDiv" style="position: absolute; width: 100%; height: 100%; z-index:

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: 249px; top: 7px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -43px; top: 7px; width: 292px; height: 210px;">

</div>

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -43px; top: 217px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: 249px; top: 217px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: 249px; top: -203px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -43px; top: -203px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -335px; top: -203px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -335px; top: 7px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -335px; top: 217px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -335px; top: 427px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: -43px; top: 427px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: 249px; top: 427px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: 541px; top: 427px; width: 292px; height: 210px;">

+ <div style="overflow: hidden; position: absolute; z-index: 1; left: 541px; top: 217px; width: 292px; height: 210px;">

eXtensible Text Framework (XTF)

- **Tomcat (Java)**
- **Free, open source, Apache/BSD/MPL licensed**
 - University of California, California Digital Library
- **Indexes numerous document types:**
 - XML, HTML, Word, PDF, TXT...
- **Indexer is customizable (XSLT)**
- **Interface is customizable (XSLT, CSS, HTML)**



XTF: Features

- **Facets**
- **Boolean, wildcards, exact phrases**
- **Structure-aware searching**
- **Subscribe to search results (RSS)**
- **Book bags**
- **Spell checker**
- **Suggestions**
- **Book reader**



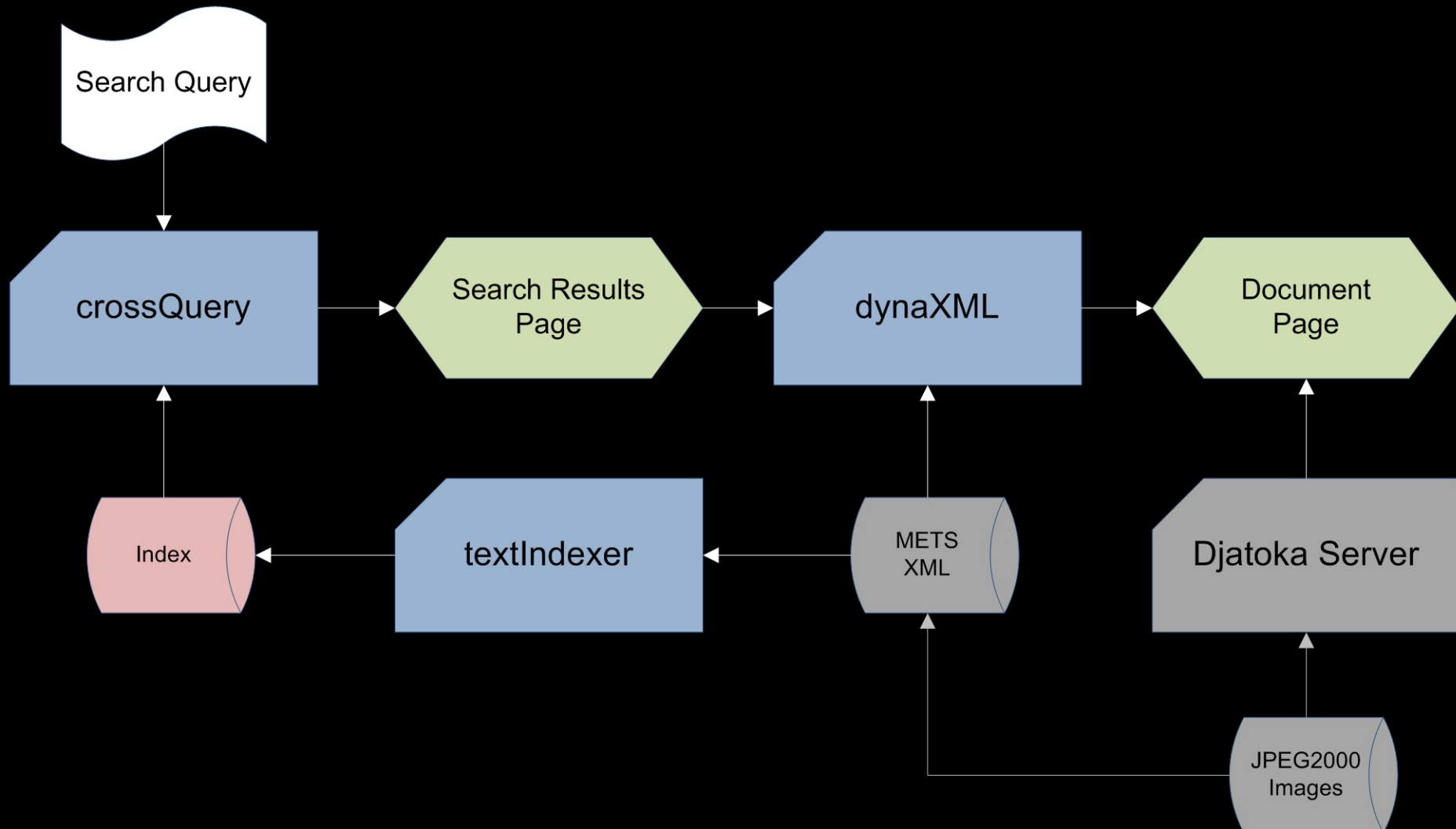
XTF: System Overview

- **Four Sub-Systems:**

- crossQuery: Front-end search interface
- dynaXML: Item level viewer
- Text Engine: Search engine
- Indexer: Lucene based text indexer



XTF: System Overview



Credits

Advisory Board

- **Barry Bergdoll**
Historian (MoMA & Columbia)
- **Jean-François Bédard**
Historian (SU)
- **Isabelle Hyman**
Historian (NYU)
- **Jonathan Massey**
Historian (SU)
- **Barbara Opar**
Librarian (SU)
- **Sean Quimby**
Director, Special Collections (SU)
- **Suzanne Thorin**
Dean of Libraries (SU)

Syracuse University Library Staff

- **Michele Combs**
Head of Manuscripts Processing
- **Kevin Dames**
Copyright Adviser
- **Michael Dermody**
Project Archivist
- **Teresa Harris**
Project Coordinator
- **Susan Kline**
Project Archivist
- **Jeremy Morgan**
Information Technology Analyst
- **Sean Quimby**
Director of Special Collections
- **Peter Verheyen**
Head of Preservation

Digitization

- **Hudson**
Microimaging

METS Consultant

- **Terry Catapano**
Columbia University

Web Designer

- **Flat, Inc.**