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
Partner Institutions

30,000 Objects

- bauhaus dessau: 62 Objects
- Harvard University: 708 Objects
- Smithsonian Archives of American Art: 515 Objects
- University of East Anglia: 712 Objects
- Bauhaus-Archiv Berlin: 130 Objects
- ETH Zurich: 200 Objects
- RIBA: 272 Objects
- Vitra Design Museum: 225 Objects

Partners Still in Negotiations
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Types of Materials in the Collection

BENTON & BOWLES, INC.
444 MADISON AVENUE, NEW YORK
ADVERTISING

January 16, 1939

Dear Lenox,

Thank you for your letter of January 10. In general, the plan discussed at your apartment seems satisfactory. We would like to suggest, however, a simplification which impresses us as being more compact and ought to make a less expensive structure. This plan (for which rough estimates are enclosed) eliminates the stairway from the living room and adds the stairway as well as the den to the widened two-story section. We think this might eliminate the necessity of any superstructure which might be expensive and which would break the terrace or roof lines.

We shall enumerate various points which occur to us:

1. The plan calls for a minimum basement, a first floor, and a second floor which extends 4 feet (north) and ten feet (east) over the first floor, but does not extend above the living room. This would give us a useful and pleasant layout of the land very well. (Be measured out the plan on the grounds last weekend.)

2. The sizes and proportions of the rough plan attached are generally what would please us.

3. We prefer to split the connecting wall for the time being and use instead a stone wall (one story) on the south facade as well as for a section (one story) and unlay of the east elevation. We think your point of the continuation of the wall above the windows can be solved by means of pillars or a steel girders of some sort across the top of the windows.

4. This stone wall (and probably the one story section of the east elevation shall be extended high enough to make a railing for the porch which will be located above the dining room. (See sketch.)

5. We will need water outlets on two ends of the house and various electric contact plugs outside (as in the Maugert House) to expect pipe and wood to be bag, house and termite proof.

6. Expect all electric wiring to be short-circuit proof and waterproof according to Fire Insurance specifications.

7. We attach a value to the easy and efficient locking of windows and doors so that when necessary, we can close the house completely.

8. A well-grounded Radio Antennas can take the place of any lightning rod system.

9. We would like to call your attention again to the clause concerning protection of trees in our contract with the builder, since we have carefully marked and noted those in the immediate vicinity of the house, and since we find that all of them are necessary to enhance the lines of the house from different angles.

A detailed survey with contour specifications, together with measured tree distances and exact angles will be sent to you at the end of this week. The surveyor who is taking these measurements is Edward L. Finklerly of Langsner's, and if anything occurs that you may care to know about please...

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

### Professional Papers
- Correspondence
- Writings
- Presentations
- Associations & Committees
- Awards
- Research Notes
- Reference Files
- Unique Subseries

### Faculty Papers
- Administrative
- Course Materials
- Research Notes
- Reference Files
- Students’ Work
- Unique Subseries

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

### Project Records
- Project Lists
- Files
- Photographs
- Drawings
- Unique Subseries

### Project Records
- Project Lists
- Files
- Photographs
- Drawings
- Unique Subseries

### Art & Artifacts
- Additional Donations

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Metadata Relationships

- **Project**
  - Project ID
  - Project Title
  - Project Type
  - Location
    - Street address
    - City
    - State
    - Country
  - Project Date Range
  - Project Characteristics

- **Object**
  - Object ID
  - Object Title
  - Object Type
  - Object Date
  - Associated Projects
    - Project ID
  - Associated Names
    - Name ID
    - Name
      - First Name
      - Middle Initial
      - Last Name
      - Suffix
      - OR
      - Firm Name
    - Notes
  - Language
  - Associated Images
    - Image ID
    - Notes

- **People**
  - Name ID
  - Name
    - First Name
    - Middle Initial
    - Last Name
    - Suffix
    - OR
    - Firm Name
  - Notes

- **Image**
  - Image ID
  - Image Title
  - Notes
  - Physical Description
  - Drawing Type
  - Dimensions
  - View Type
  - Image Date
  - Repository
Metadata Workflow

- Excel Spreadsheets
- Database
- METS Objects
Project Timeline

- NEH Grant Received: 2009
- Selection and Digitization of Materials up to 1955
- Processing of Entire Breuer Collection
- Construction of METS Database & Metadata Input
- Development of METS Template
- XTF Customization
- Design & Testing of Website
- Website Launch: 2012
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
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)
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last</td>
<td>Breuer</td>
</tr>
<tr>
<td>Middle</td>
<td>Lajos</td>
</tr>
<tr>
<td>First</td>
<td>Marcel</td>
</tr>
<tr>
<td>Firm Name</td>
<td></td>
</tr>
<tr>
<td>Alternate Name</td>
<td>Lajkó</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>
### METS DB: Projects

- Project Name
- Alternate Name
- Project Types
- Location
- Date
- Hyman/Driller Catalog Numbers
- Notes (internal usage)
<table>
<thead>
<tr>
<th><strong>Edit Project</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Name</strong></td>
</tr>
<tr>
<td>Breuer House</td>
</tr>
<tr>
<td><strong>Alternate Name</strong></td>
</tr>
<tr>
<td>Breuer House / Woods End colony</td>
</tr>
<tr>
<td><strong>Project Types</strong></td>
</tr>
<tr>
<td>Residential</td>
</tr>
<tr>
<td><strong>Street 1</strong></td>
</tr>
<tr>
<td><strong>Street 2</strong></td>
</tr>
<tr>
<td><strong>City</strong></td>
</tr>
<tr>
<td>Lincoln</td>
</tr>
<tr>
<td><strong>State</strong></td>
</tr>
<tr>
<td>MA</td>
</tr>
<tr>
<td><strong>Country</strong></td>
</tr>
<tr>
<td>USA</td>
</tr>
<tr>
<td><strong>Project Date</strong></td>
</tr>
<tr>
<td>1939 - ☑ Estimated - ☑ Estimated (YYYY-MM-DD)</td>
</tr>
<tr>
<td><strong>Hyman Catalog Number</strong></td>
</tr>
<tr>
<td>149</td>
</tr>
<tr>
<td><strong>Driller Catalog Number</strong></td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
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)
<table>
<thead>
<tr>
<th>Image Title</th>
<th>Gymnasium Elevations (Dwg. No. 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Description</td>
<td>Diazo Print</td>
</tr>
<tr>
<td>Drawing Type</td>
<td>Working/Construction Drawing</td>
</tr>
<tr>
<td>View Types</td>
<td>Elevation</td>
</tr>
<tr>
<td></td>
<td>Detail</td>
</tr>
<tr>
<td>Image Date</td>
<td>1954-02-15 (YYYY-MM-DD)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>42 x 30</td>
</tr>
<tr>
<td>Repository</td>
<td>Syracuse University</td>
</tr>
<tr>
<td>Image Notes</td>
<td>with red pencil annotations</td>
</tr>
<tr>
<td>Date of Digital Image</td>
<td>2010-04-19 (YYYY-MM-DD)</td>
</tr>
<tr>
<td>General Technical Information</td>
<td>Archival TIFFs: 300dpi, 24-bit Color, Professional Photography by</td>
</tr>
<tr>
<td>Pixel Dimensions of Digital Image</td>
<td>9316x7364</td>
</tr>
</tbody>
</table>
METS DB: Objects

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

Duplicate Object | View XML

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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</thead>
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<tr>
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<td>1939-10-25</td>
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<td>Projects</td>
<td>Breuer House</td>
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<td>People</td>
<td>Breuer, Marcel, Lejos</td>
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<tr>
<td></td>
<td>Richards, J.M.</td>
</tr>
<tr>
<td>Firms</td>
<td>Architectural Review</td>
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<tr>
<td>Images</td>
<td>Box_05_Folder_014/02828-001</td>
</tr>
<tr>
<td>Languages</td>
<td>English</td>
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<td>Enclosures</td>
<td>02828</td>
</tr>
<tr>
<td>Tags</td>
<td></td>
</tr>
</tbody>
</table>
METS Database Diagram
Example XML Export  (schema still being decided on)
metsHdr CREATEDATE="2010-12-15T12:00:00.000-07:00"
LASTMODDATE="2010-12-15T12:00:00.000-07:00" RECORDSTATUS="NEW"
<m:agent ROLE="EDITOR" TYPE="ORGANIZATION">
  <m:name>Syracuse University Library</m:name>
</m:agent>
</metsHdr>
<mets:mdSec ID="mdm1">
  <mets:mdWrap MDTYPE="DC" LABEL="DC">
    <mets:xmlData>
      <dc:identifier>3587</dc:identifier>
      <dc:title>Baseball Stadium at Cartagena, Colombia (drawing) 1947</dc:title>
      <dc:creator>Solano, Gabriel</dc:creator>
      <dc:creator>Gaitan Cortes, Jorge</dc:creator>
      <dc:creator>Ortega, Alvaro</dc:creator>
      <dc:date>1947</dc:date>
      <dc:subject>Professional Papers</dc:subject>
      <dc:type>Photograph</dc:type>
      <dc:language>Spanish</dc:language>
      <dc:description>[object:project + object:people + object:firms +
object:notes]</dc:description>
    </mets:xmlData>
  </mets:mdWrap>
</mets:mdSec>
<mets:mdSec ID="ead">
  <mets:mdRef LOCTYPE="URL" MDTYPE="EAD" LABEL="Baseball Stadium at Cartagena, Colombia (drawing)"
    xlink:href="[URL of POSTED EAD FILE]"/>
</mets:mdSec>
<mets:fileSec USE="thumbnail image">
  <mets:file ID="fid1" GROUPID="grp1" SIZE="125x103" MIMETYPE="image/jpeg">
    <mets:Fl.ocat LOCTYPE="URL" xlink:href="http://xtf.syr.edu/thumbnails/Box_16_Folder_016/00964-001.jpg"
      xlink:role="thumb"/>
  </mets:file>
</mets:fileSec>
<mets:fileGrp USE="reference image">
  <mets:file ID="fid2" GROUPID="grp1" SIZE="625x5153" MIMETYPE="image/jpeg">
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    <mets:fptr FILEID="fid1"/></mets:div>
</mets:structMap>
</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

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

Djatoka: OpenLayers Plugin

Image Title: Gymnasium Elevations (Dwg. No. 6)
Physical Description: Diazo Prnt
Drawing Type: Working/Construction Drawing
View Types: Elevation, Detail
Image Date: 1954-02-15
Dimensions: 42x30
Repository: Syracuse University
Image Notes: with red pencil annotations
Date of Digital Image: 2010-04-19
General Technical Information: Archival TIFFs: 300dpi, 24-bit Color. Professional Photography by...
Pixel Dimensions of Digital Image: 9316x7364

ROLL ROOFING & WOOD SHEATHING
6" 8" x 24"
FIN. CEILING
LAMINATED WOOD ARCH
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:** Gymnasium Elevations (Dwg. No. 6)

- **Description:** Diazo Print
- **Drawing Type:** Working/Construction Drawing

**New Types:**
- Elevation
- Detail

**Page Date:** 1954 - 02 - 15 (YYYY - MM - DD)
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
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
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  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.