Chronology Matters: Making Sense of Dates in Digital Collections

Digital Library Federation
Spring 2007 / Pasadena, CA
Joseph B. Dalton
4.24.2007
Does Chronology Matter?

W.C. Dohm [i.e. Walter Dohm],

Princeton, 1890.
Dates Provide Background
Dates Give Context To Unrelated Objects

Iroquois. *(Created 1890)*

W.C. Dohm ... 1890.

Waterproof collars and cuffs. *(ca. 1890)*
What We’ll Cover Today

- Background
- Problems – inherited and created
- Opportunities and (of course) challenges
Some NYPL Digital Gallery Numbers

- Date coverage is over broad range: 700s - 2001+
- Bulk of material (313,000 items) from 1800 - 1999
- 61 % of records have ANY date

Created 764-770. Two of The Million Prayer Towers ...
Digital ID: 1501673

Created 1999. Block 498:
Spring Street between ...
Digital ID: 524309
Some More Numbers

- $347,101 / 550,000 = \text{images with some date in index}$
- $39\% = \text{images with no depicted, created or published date}$
- $1894 = 26,362 \text{ items}$
- $1240-1260 = 240 \text{ items}$
**Medieval Manuscripts (1100s)**

*Psalterium. Created 12th Cent.* Opening page of calendar, with zodiacal symbols. Note of the gift of the volume from Magdalena of Hessburg to Bruschiuss. Elegiac couplet at the bottom.

Digital ID: 427270
Walt Whitman. created ca. 1890. Ms. leaf recto. (Notes: Draft in pencil with revisions in both pencil and ink. Ms. mounted on larger sheet ... below bottom right of ms.: "A page of Whitman manuscript sent to Gordon Loring(?) by Horace Traubel: 1907." Digital ID: 427270
Project Goals

- Sort search results by date
  
  *Challenge*: 60% of digital items have any date

- Give users choice to limit results
  
  *Challenge*: Dates in metadata were entered as text fields, not numeric

- Provide date browsing or other timelines
  
  *Challenge*: Indexing appropriate date ranges
Example Of Date Elements In Metadata

- Date element attributes
  
  type: “published,” “depicted,” or “created”
  
  level: “parent,” etc.

```
<title level="3" struc="244060" catalog="b4170269" seq="1" type="root">Detroit Publishing Company postcards</title>
<title level="2" struc="50492" seq="15" type="parent">71000 series</title>
<title level="1" struc="51177" seq="48" type="main">A Glimpse of Blue Immensity</title>
<title type="manual_filing_title" level="3">Detroit Publishing Company postcards</title>
<identifiers catalog="b4170269" bibl="" barcode="" call="MFY 95-29" sref=""/>
<location division="Photography Collection, Miriam and Ira D. Wallach Division of Art, Prints and Photographs"
center="Humanities and Social Sciences Library" div_id="hsh"/>
<obj image="74207" seq="1">
  <medium width="300" height="300">http://images.nypl.org/?id=74207&t=r</medium>
  <small width="150" height="150">http://images.nypl.org/?id=74207&t=t</small>
  <large width="760" height="515">http://images.nypl.org/?id=74207&t=w</large>
</obj>
<physical medium="Offset photomechanical prints" specific="Photomechanical prints"/>
<publisher date="1913-1918, re- issued through 1930" place="Detroit" name="Detroit Publishing Company"/>
<pagination page="DPC# 71107" seq="48"/>
<date type="published" level="parent">1913-1918, re- issued through 1930</date>
<collection id="164" name="Detroit Publishing Company Postcards in the Leonard Lauder Postcard Collection"/>
<extract_info extract_date="3/29/2007"/>
```
NYPL Dates Are Assigned By Level

- Bibliographic structure
  - Collection (root_title)
    - inter_titles (folders, vols. etc.)
      - parent_title
        - main_title (image)

- Dates extracted by “level”

- Indexed in date-type fields
Date Is ‘Flattened’ In Lucene Index

- Indexed simply as “date_published”

```xml
<pagination page="DPC#1110" seq="96"/>
<date type="published" level="parent">1913-1918, re-issued through 1930</date>
<collection id="164" name="Detroit Publishing Company Postcards in the Leonard I...
```
The “On A Statue Problem”

- Context for *published, created, or depicted* can be complicated
- Flatten dates or privilege a single access point?
Statue Dedicated 1891

- Range: 1891, 1813-87, 1830-91, later?
- Detail: date sculpture created, photograph taken?

Image Caption: Henry Ward Beecher by John Quincy Adams Ward, in Borough Hall Park, Brooklyn, given to the city in 1891


Library Division: Humanities and Social Sciences Library / Photography Collection, Miriam and Ira D. Wallach Division of Art, Prints and Photographs

Description: Approx. 8,000 photographs

Specific Material Type: Photographs

Item Physical Description: 25.5 x 20.5 cm.

Subject(s): Beecher, Henry Ward, 1813-1887

Additional Name(s): Ward, John Quincy Adams, 1830-1910 -- Sculptor

Notes: [On verso: Statue's inscription]; [also on verso] Municipal Art Commission.

Collection Guide: "The Pageant of America" Photograph Archive

Digital Image ID: 490330

Digital Record ID: 96651
Depicted vs. Created?

- Distinctions may not mean as much to our users

- Search default: all “date_type” fields

**Image Caption:** Henry Ward Beecher by John Quincy Adams Ward, in Borough Hall Park, Brooklyn, given to the city in 1891

**In:** "The Pageant of America" Collection > v.10 - American idealism > (Unpublished photographs) > Portraits.

**Library Division:** Humanities and Social Sciences Library / Photography Collection, Miriam and Ira D. Wallach Division of Art, Prints and Photographs

**Description:** Approx. 8,000 photographs

**Specific Material Type:** Photographs

**Item Physical Description:** 25.5 x 20.5 cm.

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**Notes:** [On verso: Statue's inscription]; [also on verso] Municipal Art Commission.

**Collection Guide:** "The Pageant of America" Photograph Archive

**Digital Image ID:** 490330

**Digital Record ID:** 96651
Indexing Acceptable Date Ranges

- Many digitized items contain a broad range
  - Some works created over time (centuries)
  - Works collected over time
  - Dates harder to catalog for older materials
  - Item may contain several depictions

- Algorithm indexes date ranges by default to most granular (item) level
  - Allow larger ranges for older dates (?)
A 400 Year Date Range For Single Object

Published Date: Meiji 41 [1908]
Depicted Date: 710-1185
Library Division:
Item/Page/Plate Number: Picture No. 9
Medium: colored woodcut
Specific Material Type: Prints
Item Physical Description: 1 print
Subject(s): Costume -- Japan -- History -- Heian period, 794-1185
Costume -- Japan -- History -- Nara period, 710-794
The “Castle Map Problem”

**Image Caption:** An old map of Heiankyo (Heian Castle).

**In:** Kokushi daijiten / [kanshūsha Hagino Yoshiyuki; hensansha Yashiro Kuniji, Hayakawa Junzaburō, Inobe Shigeo] (published Meiji 41 [1908])

**Alternate Title:** Kokushi daijiten sashie oyobi nenpyōo.

**Published Date:** Meiji 41 [1908]

**Depicted Date:** 794-1185

**Library Division:** Humanities and Social Sciences Library / Asian and Middle Eastern Division

**Description:** 2 v. : ill. (some col.) ; 27 cm.

**Item/Page/Plate Number:** Picture No. 2

**Specific Material Type:** Prints

**Item Physical Description:** 1 print ; 41 x 33.5 cm. on sheet 48.5 x 37.5 cm.

**Subject(s):** Cities & towns -- Japan

**Additional Name(s):** Hagino, Yoshiyuki -- Compiler
Inobe, Shigeo -- Editor
Hayakawa, Junzaburō -- Editor
Yashiro, Kuniji -- Editor

**Notes:** Kokushi daijiten : (Kyoto) *Note 2.*) For reference : Kokushi daijiten -- (Kokyo) *Note 3.*) Map size : 41 x 33.5 cm. Scale : 10.5 cm = 2.18 km. (1/20000 full size). Map taken from Heian tsushi (1895?). *Note 4.*) For reference : Kokushi daijiten -- (Kokyo)

**Collection Guide:** Asia and the Eastern Pacific Rim in Early Prints and Photographs
Parsing Numeric Dates From Text

- Some Examples:
  - 22-Aug-42
  - [19 - -]
  - 12 Cent.
  - [181-? - 1872]
  - Early 1810s
  - Late 14th Century
  - Before 950 ...
Spot the Outlier?
What Outlier?
... Finds Out-of-place Items
Abbreviated Date Leads To Index Error
### Abbreviation Examples

98 hits/items for ((date_created:early) OR (date_deported:early) OR (date_published:early)) with this class: lucencsearch dump:

<table>
<thead>
<tr>
<th>query</th>
<th>DATE_CREATED</th>
<th>DATE_DEPCTED</th>
<th>DATE_PUBLISHED</th>
<th>HITS</th>
<th>IMAGE_ID</th>
<th>PARENT_ID</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423661</td>
<td>185654</td>
<td></td>
<td></td>
<td>Page of text with 1-line and 2-line initials, rubric, and notes.</td>
</tr>
<tr>
<td>2 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423662</td>
<td>185654</td>
<td></td>
<td></td>
<td>Page of text, initial with animal figures. Small initials, rubric, notes.</td>
</tr>
<tr>
<td>3 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423663</td>
<td>185654</td>
<td></td>
<td></td>
<td>Text in two columns, initials, explicit, and note hand.</td>
</tr>
<tr>
<td>4 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423664</td>
<td>185654</td>
<td></td>
<td></td>
<td>Opening page of calendar</td>
</tr>
<tr>
<td>5 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423665</td>
<td>185654</td>
<td></td>
<td></td>
<td>Opening of main text with large initial, border decoration, initials with penwork, rubrics, sketches of birds in lower border.</td>
</tr>
<tr>
<td>6 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423666</td>
<td>185654</td>
<td></td>
<td></td>
<td>Page of text with initials and penwork, border design, rubrics and catchword.</td>
</tr>
<tr>
<td>7 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423667</td>
<td>185654</td>
<td></td>
<td></td>
<td>Teigitur, historiated initial, Priest at Altar</td>
</tr>
<tr>
<td>8 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423668</td>
<td>185654</td>
<td></td>
<td></td>
<td>Explicit of text. Hand 2. Simpler decoration of last 3 folios -- red initials with brown penwork, rubrics, yellow daubs as placemarkers.</td>
</tr>
<tr>
<td>9 early 14th century</td>
<td>early 14th century</td>
<td>98</td>
<td>423669</td>
<td>185654</td>
<td></td>
<td></td>
<td>Opening of text: prologue to Nahum. Large gold initial decorated in many colors, hierarchy of scripts. Main hand.</td>
</tr>
<tr>
<td>11 early 15th cent.</td>
<td>early 14th century</td>
<td>98</td>
<td>425277</td>
<td>185678</td>
<td></td>
<td></td>
<td>End of prologue for Habakkuk, beginning of main text. Large initial with portrait of prophet. Hierarchy of scripts, rubrics, Quire signature.</td>
</tr>
<tr>
<td>12 early 15th cent.</td>
<td>early 15th century</td>
<td>98</td>
<td>425278</td>
<td>185678</td>
<td></td>
<td></td>
<td>Zechariah, figure-initial</td>
</tr>
<tr>
<td>13 early 15th cent.</td>
<td>early 15th century</td>
<td>98</td>
<td>1261442</td>
<td>185678</td>
<td>614429</td>
<td></td>
<td>Malachi, historiated initial: Christ Pantocrator</td>
</tr>
<tr>
<td>14 early 15th cent.</td>
<td>early 15th century</td>
<td>98</td>
<td>425280</td>
<td>185678</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 early 13th century</td>
<td>early 13th century</td>
<td>98</td>
<td>427105</td>
<td>185711</td>
<td>250743</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 early 13th century</td>
<td>early 13th century</td>
<td>98</td>
<td>427106</td>
<td>185711</td>
<td>250745</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 early 13th century</td>
<td>early 13th century</td>
<td>98</td>
<td>427107</td>
<td>185711</td>
<td>250747</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 early 13th century</td>
<td>early 13th century</td>
<td>98</td>
<td>1261439</td>
<td>185711</td>
<td>614426</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 early 13th century</td>
<td>early 13th century</td>
<td>98</td>
<td>1261440</td>
<td>185711</td>
<td>614427</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Date Limit Options In Advanced Search

Search Keywords in Fields
These results are displayed as thumbnail images.
Enter word(s) to search, choose type of search, and select fields.
Enter keywords to search: find all words (AND)

Fields to search:
- All Fields
- Image Caption
- Source Title (Album, Book, etc.)
- Subject
- Name (Author, Artist, Lithographer, etc.)

Limit by word(s):
(items found will NOT contain these words or phrases in fields that are searched)

GO

Limit Search by Date
Select or enter one or more years to limit your search by date.

Select Start Year - Select End Year

Year Range:

Exact Year:

(Enter all years in format "YYYY" or "YYY", like these examples: "1872" or "950")

Browse by Date
View all Gallery items for selected years

[ clear all options ]

Limit Keyword Search by Center or Division
To limit a field search to one or more Centers or Divisions of the Research Libraries, choose from the Divisions listed below. If no division is selected, all Divisions of the Research Libraries will be searched.

Humanities and Social Sciences Library:

- Select from Divisions below
- All Divisions of Humanities and Social Science Library
- Art and Architecture Collection, Miriam and Ira D. Wallach Division of Art, Prints and Photographs
- Asian and Middle Eastern Division
- Carl H. Pforzheimer Collection of Shelley and His Circle

The New York Public Library for the Performing Arts:

- Select from Divisions below
- All Divisions of The New York Public Library for the Performing Arts
- Billy Rose Theatre Collection
- Jerome Robbins Dance Division
Date Ranges Parsed To Linked Date Queries

Search Results - Image Detail

Item 482 of 2,242

<< Back to Thumbnail Images

Image Caption: 1813, Dec. 1, AL, draft of letter from Robert Fulton to Robert R. Livingston

In: Robert Fulton papers, 1790-1813 (created 1790-1813)

Library Division: Humanities and Social Sciences Library / Manuscripts and Archives Division

Item/Page/Plate Number: 4

Medium: AL, draft

Specific Material Type: manuscript

Subject(s): Fulton, Robert, 1765-1815

Additional Name(s): Fulton, Robert, 1765-1815 -- Author
Livingston, Robert R., 1746-1813 -- Recipient

Digital Image ID: rf_0931813

Digital Record ID: 189139

View Library Catalog Record

Search For More Images

Digital ID: rf_0931813

Enlarge Image
Add to Selections
Printer-friendly Version
Purchase Print or Gift
Date Distribution Timeline: Ranked By Hits

Some Lessons We’ve Learned

- Date browsing interfaces may look simple, but useable metadata is still a big challenge
- Exposing date facets often will involve intensive metadata remediation
- Build as much granularity as possible in your date metadata early on
- Dates = easy to use?
Alice Brady

Alice Brady (November 2, 1892 - October 28, 1939) was an Academy Award-winning American actress in the silent film era of the late 1910s and 1920s through the 1930s, during the Great Depression.

Career

Brady began her movie career at the age of 22 in New York City's World Studios. Her father, William A. Brady, was its owner as well as an important theatrical producer in New York.

Her first film was the silent As Ye Sow (1915) as Dora Leland. She acted in more than 50 silent films throughout her career, but during the 1920s she was more prolific as a stage performer. She returned to the screen in 1933 in her first talkie, When Ladies Meet.

It was for her portrayal of Mrs. Molly O'Leary in 1937's In Old Chicago that she won her Oscar.

Brady died in New York City of cancer on October 28, 1939 shortly after filming Young Mr. Lincoln with director John Ford.

Academy Awards

Wins:

- 1937 - Best Supporting Actress in In Old Chicago

Nominations:

- 1936 - Best Supporting Actress in My Man Godfrey

<table>
<thead>
<tr>
<th>Preceded by</th>
<th>Academy Award for Best Supporting Actress</th>
<th>Succeeded by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gale Sondergaard for Anthony Adverse</td>
<td>1937 for In Old Chicago</td>
<td>Fay Bainter for Jezebel</td>
</tr>
</tbody>
</table>
1939 (MCNXXXIX) was a common year starting on Sunday (link will display full year calendar).

### Contents [hide]

1 Events
   1.1 January
   1.2 February
   1.3 March
   1.4 April
   1.5 May
   1.6 June
   1.7 July
   1.8 August
   1.9 September
   1.10 October
   1.11 November
   1.12 December
   1.13 Undated
   1.14 Ongoing events

2 Births
   2.1 January
   2.2 February
   2.3 March
   2.4 April
   2.5 May
   2.6 June
   2.7 July
   2.8 August
   2.9 September
   2.10 October
   2.11 November
   2.12 December
1937 in rail transport

From Wikipedia, the free encyclopedia

This article lists events related to rail transport that occurred in 1937.

Contents [hide]

1 Events
   1.1 January events
   1.2 March events
   1.3 April events
   1.4 May events
   1.5 June events
   1.6 October events
   1.7 December events
   1.8 Unknown date events
2 Births
3 Deaths
4 References

Events

January events

- January - General Motors Electro-Motive Division introduces the EMD E2.

March events

- March 9 - In a joint announcement, Pullman and the New York Central announce the order of new streamlined equipment to be NYC's "Great Steel Fleet". At the same time Pullman and the Pennsylvania Railroad announce new streamlined cars to be PRR's "Fleet of Modernism".
- March 15 - The last tram operates on the Porte de Saint-Cloud-Porte de Vincennes line in Paris, France.[1]
Bad Day, 1445
Image Caption:
Rubric and full-page miniature of men with their hands and feet being cut off.
In:
Renaissance and medieval manuscripts collection, ca. 850-ca. 1600. > [Bible History]
(created 1445)
Library Division:
Humanities and Social Sciences
Description:
ff. 470, 28 x 21 cm.
Item/Page/Plate Number:
f. 372
Specific Material Type:
mss. text
Additional Name(s):
Schlapperitz, Cunradus -- Author
Collection Guide:
Medieval and Renaissance Illuminated Manuscripts from Western Europe
Digital Image ID:
426562
Digital Record ID:
249634
NYPL Call Number:
MA 104

digitalgallery.nypl.org/nypldigital/dgkeysearchdetail.cfm...

Comments

facecrunch  pro  says:
Man, that would suck.
Posted 13 months ago. (permalink)

facecrunch  pro  says:
Explore / Tags / 1440s

Sort by:
Most recent • Most interesting

What are tags?

You can give your photos a "tag", which is like a keyword. Tags help you find photos which have something in common. You can assign up to 70 tags to each photo.

Feed — Subscribe to photos tagged with 1440s

You
Sign in | Create Your Free Account

Save to del.icio.us
A church in Ribeira, Ponte de Lima, Portugal

Would you like to comment?

Sign up for a free account, or sign in (if you're already a member).
The New York Public Library ~ Digital Library Program ~ 04.24.07

Olympus 14-45 For Less

Buy 14-45 Olympus
www.NexTag.com/Digital-Cameras We Have 800+ Digital Cameras. 14-45 Olympus on Sale!

Amazon.com: Olympus 14-45mm f/3.5-5.6 Zuiko Digital Zoom Lens for...
The Olympus 14-45 millimeter Zuiko Digital Zoom Lens expands the power of the E-System, the world's first 100 percent all-digital interchangeable lens SLR...
www.amazon.com/Olympus-14-45mm-3-5-5-6-Digital-Cameras/dp/B0006NAB96 - 123k - Cached - Similar pages

Olympus 14-45 mm Digital | TrekEarth
... Dutch, English, French, Greek, Hebrew, Italian, Japanese, Korean, Lithuanian, Polish, Portuguese, Russian, Spanish. Photos: Olympus 14-45 mm Digital...
www.trekearth.com/photos.php?cat=lens&id=2558 - 21k - Cached - Similar pages

TrekEarth | Evening colors Photo
www.trekearth.com/gallery/Asia/Thailand/photo605667.htm - 14k - Cached - Similar pages
[ More results from www.trekearth.com ]

wrotniak.net: The Olympus E-System
... Barbados Photo Gallery — how the E-300 performs in the field, with Olympus 14-45 mm and Sigma 55-200 mm zooms (Posted 2005/06/04)...
www.wrotniak.net/photo/oly-e/index.html - 19k - Cached - Similar pages

wrotniak.net: Sigma 55-200 mm F/4-5.6 DC Lens for Olympus E-System...
While the difference varies with focal length, it is quite visible, more than that between the Olympus 14-45/3.5-5.6 and 14-54/2.8-3.5 in my standard zoom...
www.wrotniak.net/photo/oly-e/si-055-200.html - 28k - Cached - Similar pages
[ More results from www.wrotniak.net ]
Future Directions: Time Machine

Time Machine
Time Machine

32 minutes ago...

SOCK YARN Hand Dyed Merino - Avalon x WhiteWillow

$14

This is one skein of fingering weight 100% Merino sock yarn that was hand dyed by myself, here in...
The time is temporarily disabled. Check again later.
Further References & Credits


- **Thanks to:** Tom Robertson (Lucene consulting, Stanford), Lee Horowitz (NYPL), Janet Murray (NYPL), Barbara Taranto (NYPL)

- **Contact:** jdalton@nypl.org