

UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN

The Role of Deacidification in the  
Library's Preservation Program

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# Outline

- What is deacidification?
- Why was it developed?
- Deacidification's Goals
- Use of Deacidification in Research Libraries
  - The Carl Sandburg Collection: A Case Study
- The Ongoing Role of Deacidification in Research Libraries



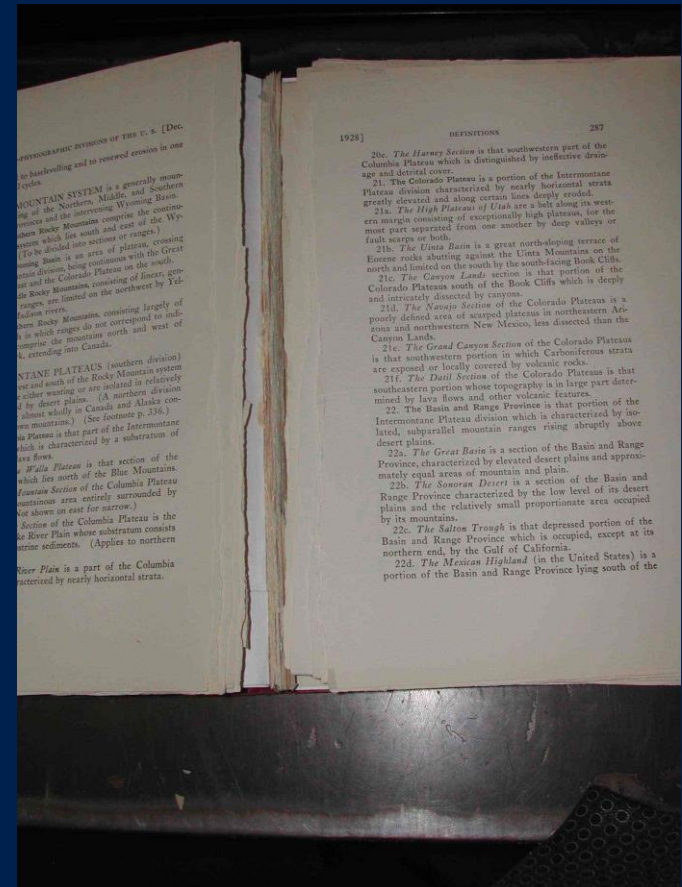
# What is Deacidification?

- Deacidification – a process that artificially elevates the pH of acidic paper. The treatment neutralizes the acids in paper and leaves an alkaline buffer.
  - Traditionally completed during intensive conservation treatment of single items.
  - Although many processes were developed, the greatest advocate was William J. Barrow, a pioneering scholar that completed his research in the 1940's – 1960's



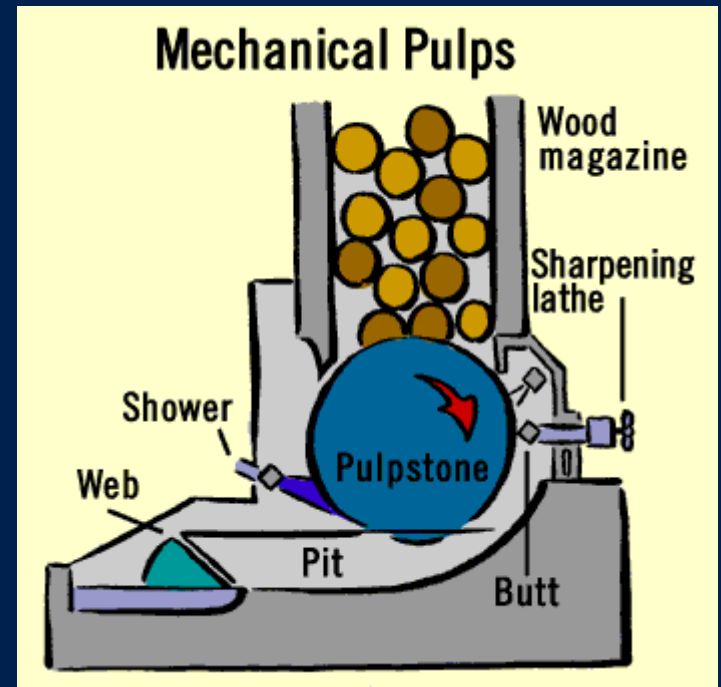
# What is Mass Deacidification?

- Mass Deacidification – The treatment of large quantities of acidic library and archival materials with the intent of neutralizing acids within the paper and creating an alkaline buffer.
- What motivated the development of mass deacidification?



# Industrialism & the Rise of Literacy

- Increased need for reading materials spurred innovations that sped the production of paper, books, and other reading materials.



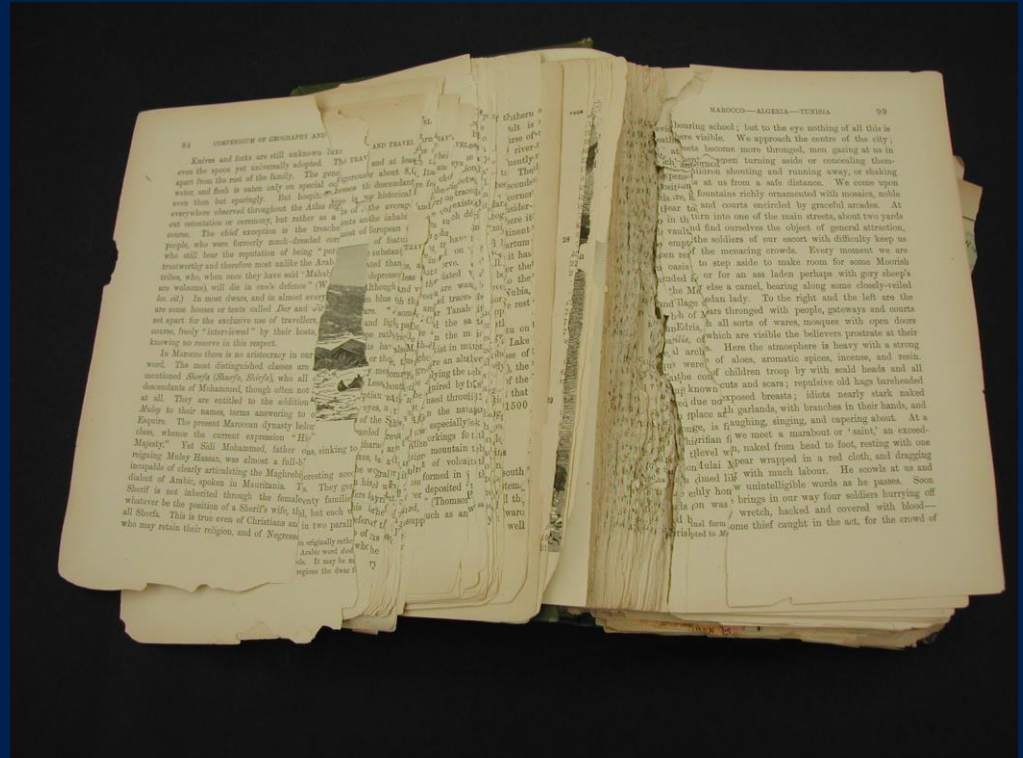
# Causes of Embrittlement

- An old story...
  - The end of rag paper....
  - Industrialized Production
  - Inherent Vice
  - External contaminants
- Additional Factors
  - Poor environmental conditions



# Brittle Books Crisis

- In the course of a few decades, the Brittle Books Crisis emerged...



# Goals of Deacidification

- Library of Congress
  - Neutralize acid and add alkaline reserve
  - Evenly distribute pH between 6.8 and 10.4 in book
  - Successful process can not:
    - *Cause damage to adhesives, inks, or dyes*
    - *Leave odor or cause pigment change in paper*
    - *Reduce mechanical strength of book or paper*





# Goals of Deacidification (Further Refined)

- Slovak University of Technology
  - Chemicals must be safe
  - Process can be applied to any type of paper
  - Process can not cause swelling or warping of paper



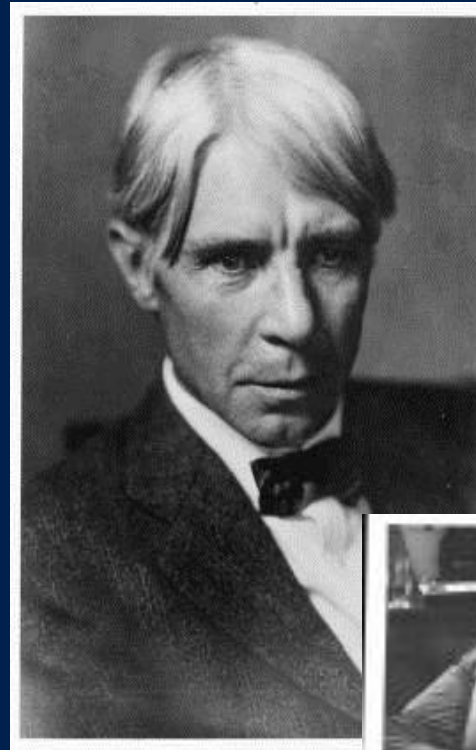
# Deacidification Processes

- Aqueous
  - Require testing for water sensitivity
  - Suitable for unbound, single items
  - Traditionally associated with item level conservation
- Non-Aqueous
  - Use solvents or gasses as carriers
  - Suitable for treating bound and unbound materials
  - Suitable for both mass treatments and single items through spray application



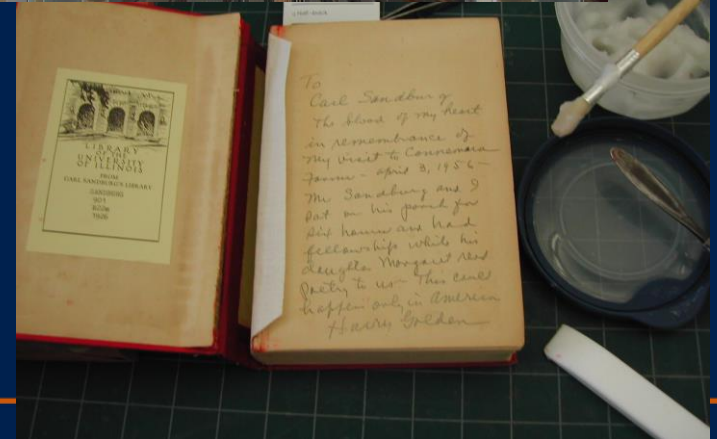
## Case Study: Sandburg Papers

- Why this collection?
  - Journalist
  - Poet
  - Historian
  - Biographer
  - Folklorist
  - Musician
  - Also...
    - *Rural Populist*
    - *Urban Labor advocate*
    - *Occasional Leftist*
    - *Purported Romeo*



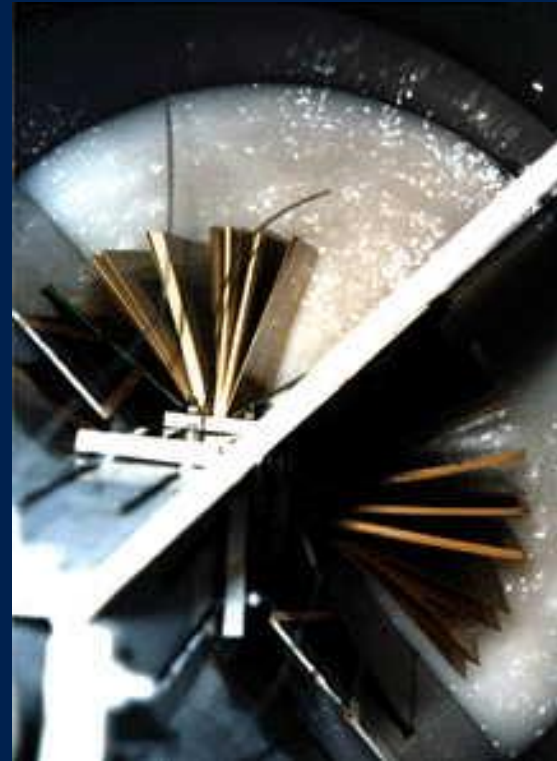
# Sandburg Monographs: Needs

- Condition Assessment
  - Test for acidity and brittleness
  - Evaluate value
  - Identify Conservation Needs
- Repair
  - Simple, Complex and Everything Between
- Rehousing
  - Protective enclosures for brittle items



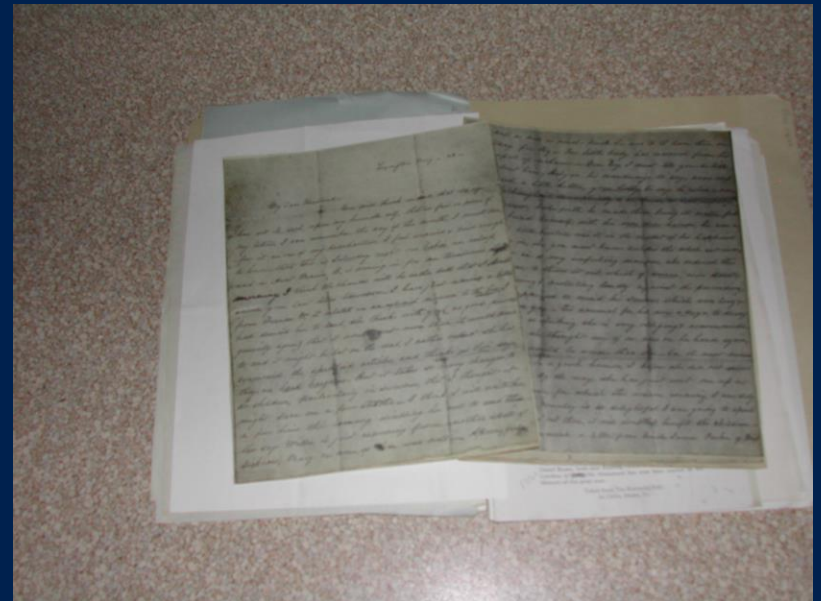
# Sandburg Monographs: Deacidification

- Commercial process
  - Non-aqueous deacidification
  - Vendor packs, transports, treats, and returns items to shelf
- Benefits:
  - Arrests deterioration
  - Brittle items remain brittle, but stable
- Challenges:
  - Inventorying items
  - Preserving Research Notes



# Sandburg Manuscripts: Evaluation

- Graduate Student employee reviewed items for treatment
- What were we searching for?
  - Chemically sensitive materials and media
  - Valuable or fragile items
  - Items requiring removal
  - Clippings



# Sandburg Manuscripts: Treatment

- Rehousing Manuscripts
  - Simple rehousing
  - Complicated rehousing problems
  - Paper conservation and repair for materials requiring in-house deacidification
- Reformatting Clippings
  - Preservation photocopying



# Sandburg Manuscripts: Deacidification

- Vendor packing and transportation of items
- Challenges with this?
  - None with the deacidification itself
  - Problems stemmed from:
    - *Assessing Insured value*
    - *Processing – from general materials to Sandburg’s “packets”*
    - *Developing intellectual control that is suitable to provide access to scholars and satisfy the curator’s requirements*





# Sandburg Project: Additional Work

- Rehousing Manuscript Collections and Reformatting Clippings (as noted)
- Rehousing and Scanning of Photograph Collections
- Rehousing and Reformatting of Audio-Visual Collections
- Revising Finding Aids
- Creating Metadata



# The Use of Deacidification in Research Libraries

- Treatment processes exist for monographs, musical scores, pamphlets, and manuscripts.
  - Types of materials:
    - *Highly valuable monographs – monumental works in music*
    - *Highly susceptible monographs – area studies materials (including special formats)*
    - *Highly print-dependent materials – musical scores*
    - *Culturally important collections – U.S. imprints at L.C.*
    - *Literary manuscripts – papers of James Thurber, Carl Sandburg, and others.*



# The Future of Deacidification in Research Libraries

- The landscape has changed – radically.
  - Mass Deacidification – first Library of Congress contract was for 72,000 volumes.
  - Mass Digitization – first mass digitization project announced called for digitization of over 7,000,000 bound volumes.



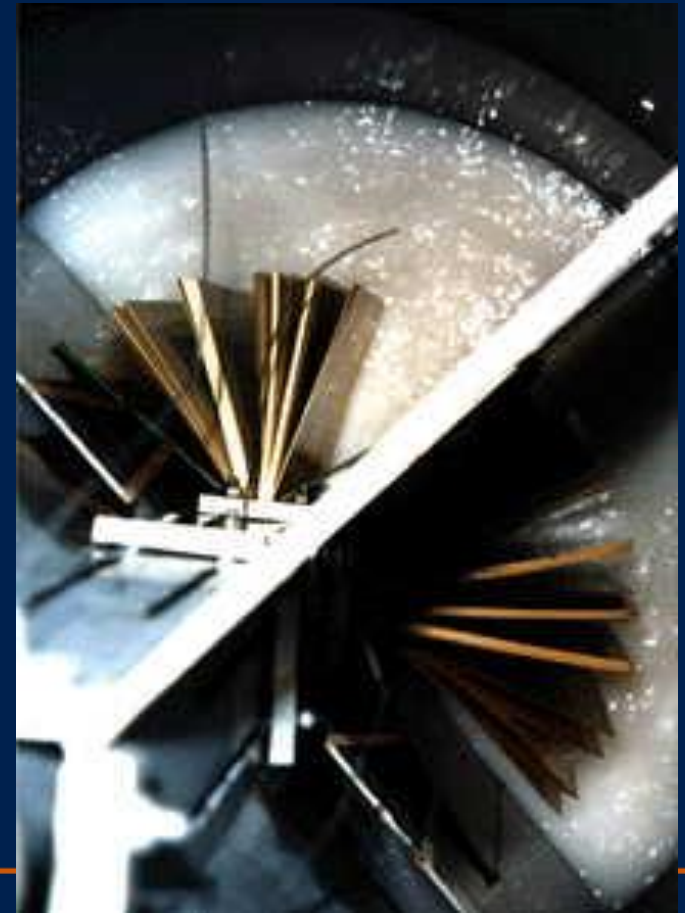
# The Future of Deacidification in Research Libraries

- In hindsight, what has been treated?
  - Special Collections...
    - *If not culturally valuable, locally valued special collections materials.*



# What is the Role of Deacidification in Research Libraries?

- Deacidification will continue to be a treatment method for special collections.
  - Depository Collections
  - Archival Materials
  - Manuscripts
  - Special Collections
  - High value items
  - Mixed Media Collections



Questions?

