

## **Preservation Planning Report and Notes from Collection Survey**

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Michigan Tech Archives

### Notes from Box-Level Preservation Survey

The preservation survey work began October 5, 2009, using a shelf list generated from an existing Microsoft Access database which provided collection/accession numbers, collection names, location and extent in cubic feet. Information captured during the survey included, accession/collection number, collection name, location, type of enclosures, number of enclosures, extent in cubic feet, evaluation of enclosure and contents based on condition and preservation concerns. The condition of enclosures and contents was rated on a scale of 1=poor to 5=excellent on the bases of archival/non-archival enclosures, preservation status and concerns and existing damage. Notations on preservation issues, damage, storage conditions and recommendations were also included on the survey form to provide further data for prioritizing future preservation work. The survey undertaken was approached with the goal of completion within six months, thus the survey was approached for the purpose of gathering information rather than implementing improvements. Occasional on-the-fly preservation action was taken, including removing rusted paperclips, rubber bands and squaring documents within folders. Serious preservation concerns or collections requiring reprocessing were immediately brought to the attention of the full-time archival staff for determination of any immediate action.

A total of 1,052 survey forms were completed. These included information for 993 separately-accessioned and -shelved manuscript collections including state records housed at the Michigan Tech Archives. A variety of media is found throughout the holdings including manuscript materials, books, ledgers, audio visual, photos, negatives including celluloid and glass plate, oversize blueprints, maps, architectural drawings and various artifacts. In addition, surveys of 59 collections were completed within the oversize/flat file storage area: these records include maps, blueprints, oversize photos and architectural drawings. Of particular note were records relating to the Copper Range Mining Company, an unprocessed collection consisting of 32 separate accessions, each of which was surveyed separately for the purpose of this project. In some cases, oversize flat file collections surveyed also comprise components of manuscript collections previously surveyed; for the purpose of the project these collections were approached separately and surveyed with forms modified to reflect the flat file storage and arrangement.

### Survey Metrics

On a day-to-day production basis, completion of the survey depended on collection variables including size, materials, condition, and storage methods. The highest number of surveys completed occurred on October 9 with 142 completed survey forms covering

41.4 total cubic feet (the largest collection of 2 cubic feet, smallest less than 0.01 cf, and an average of 0.29 cf). Over a three day period October 8-12 a total of 346 collections were surveyed. The average collection size over the three days was approximately half a cubic foot and these smaller collections reflect the greatest density of collections within the storage area. Smaller collections with fewer containers encouraged quicker completion of survey paperwork; larger collections, though requiring gathering of less background information, still required examination and description of each container.

### Survey and Preservation Notes Specific to Mining Collections

The Calumet and Hecla and Quincy Collections are similar in the type of material found, the state of accessibility and inherent preservation issues. The difference between the two collections is in the size, and timescale for surveying the material. The Calumet and Hecla collection was surveyed early on in the project, the approach used for this collection during the physical survey entailed working through the collection during two hours in the morning before the archive was open to researchers, as the Calumet and Hecla collection is a widely used resource for researchers. The rest of the day was spent surveying materials located in a different storage area. The Calumet and Hecla collection consists of 672 cubic feet of Paige boxes, manuscript boxes, shelved bound volumes and foldered oversize documents. Each box was opened and each ledger whether boxed or shelved was individually inspected; this was done to assess the preservation condition within the enclosure, state of the records and inspect for the existence of mold. Although the nature and size of the collection slowed the survey process it was still completed within approximately two-three weeks. The Quincy Mine company records consisting of approximately 435 cubic feet of Paige boxes, manuscript boxes, ledgers and foldered oversize documents was surveyed during a timeline of approximately 24 hours. The Quincy collection was surveyed in the same manner as the Calumet and Hecla collection: each box was opened to assess condition of the materials and each ledger was individually opened and inspected for signs of damage and mold. The Copper Range Collection consisting of approximately 623 cubic feet represents the time required to survey a large unprocessed collection with clear preservation concerns, this survey was completed over a two week period following a similar approach as used with the previous two mining collections. Ledgers in the Copper Range collection housed on the shelving units showed visible preservation concerns and needs, not every ledger or book was pulled from the shelf and opened, if the material showed signs of mold from a visual exterior appraisal then pulling the item from the shelf was unnecessary.

Preservation issues within the three mining company collections reflect the challenges inherent with 19<sup>th</sup> century industrial records. Within both the Calumet and Hecla and Quincy Mine collections acidification has created brittle conditions. Early 20<sup>th</sup> century records still housed in original folders are brittle and showing signs of acid migration from the folders discoloring the adjacent documents. The original folders are also brittle and creating a loss of information as the titled tabs break off the folders. Evidence of moisture exposure is present in the collections through the presence of rust, red rot, water damage and mold. Ledgers within the collections show various signs of damage

and deterioration including red rot, loose pages, covers separated from the text block, damaged spines, and mold. The presence of mold in these collections primarily occurs within the ledgers and books. Both boxed and shelved items are affected. Time books within the Calumet and Hecla collections appear seriously affected by mold, while these records are properly housed in archival folders within archival boxes the mold has damaged the spines creating a brittle and fragile condition and affecting the covers. During this survey the mold did not appear active, however it is of primary concern for future preservation as the collection is widely used by researchers. A primary preservation need with these collections include cleaning, mold remediation and evaluation for accessible and proper housing. While mold is present in these collections the records are also simply dirty.

While both the Quincy and Calumet and Hecla collections are processed, areas of the Calumet and Hecla collection require further attention to improve storage and folder use practices. Areas of the collection housed in archival folders are overfilled, and the expansion folds are not used or improperly used, of significant concern is a series of 19<sup>th</sup> century correspondence in the Calumet and Hecla collection. Overfilling of the folders has created situations where the folders and documents are curling under adjacent folders creating damaging storage situations and hindering safe access to the documents, these areas require reprocessing to improve the storage and preservation of the records. The issue of improper folder use is not limited to the Calumet and Hecla collection, this problem exists throughout the repository's holdings. At times during the survey an effort was made to improve these conditions through use of the folders expansion folds. For both the Quincy and the Calumet and Hecla collections problems are found in the storage of ledgers and letter books. Letter books and ledgers are stored within page boxes without the use of folders and has created situations where boxes are heavy and books are difficult to remove from the box. Several factors have created storage situations which threaten the continued preservation of the books, the books are primarily stored spine up, counter to best practice for book storage. Furthermore, tight storage of books without the use of folders creates damaging situations when simply attempting to remove the book from the box as there is no easy method for pulling the book out without damaging the spine.

The Victoria Mining Company Collection is a fourth mining company collection. Smaller than the three collections mentioned above, the Victoria collection consists of 50 Paige boxes and approximately 17 cubic feet of oversize bound volumes. The Victoria Mine collection is partially processed, and re-housed in archival folders, however, there is evidence of water damage to this collection and mold on documents within the folders. This collection may require an item level survey to identify areas with water damage and complete cleaning.

## Survey and Preservation Notes Specific to Photographic Collections

Photographs and negatives, both celluloid and glass plate are found throughout the holdings, as individual photographic collections and portions of larger collections. The Scott Turner collection is a larger collection which includes an extensive collection of photographs and celluloid negatives dating from the early 20<sup>th</sup> century. The negatives in the collection present a serious preservation concern; negatives within the collection are deteriorating completely or physically curling through either chemical breakdown or temperature and humidity fluctuations, also photographs throughout the repository show signs of humidity exposure through curling and cockling.

Glass plate negatives are also found within the repository, these include a numbered negative collection, the Reeder Photograph Collection, the Calumet and Hecla Photograph Collection and a collection of Quincy negatives. Overall the condition of the glass plate negatives is good, a few plates are broken and deterioration is visible in various parts of the collections including separation of the film from the glass.

## Survey and Preservation Notes Specific to Flat File Storage

Records stored in the flat file area include maps, blueprints, oversize photos and architectural drawings. The overall condition of this area is good; areas which need continued preservation work and improvement primarily involve proper folder practices, for example: not overfilling oversize folders, using appropriate size folders and overfilled drawers.

A primary area requiring preservation action includes blueprint collections. Parts of these collections are foldered “on the fly” as they are pulled for researchers; the main concern with these drawings lies in overfilled drawers. Overfilled drawers and folders make accessing materials difficult and result in damaged documents.

## Preservation Planning

Findings from the survey and preservation notes have been integrated into the Archives’ general preservation planning activity and documentation. The project has helped to highlight the important role of simple preservation activities such as cleaning and the proper use of folders and boxes. Improvement to accessioning and processing workflows in the department are likely to address and improve some of these discoveries. More significant issues of mold remediation, stabilization of red rot and the spines of bound volumes will likely require project-based (and grant-funded) solutions beyond the current capacity of the department.