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Canadian Conservation  
Institute

Institut canadien  
de conservation

LB  
File

July 20th, 1977

Ms. Anne Crocker, Librarian,  
Faculty of Law Library,  
University of New Brunswick,  
P.O. Box 4400,  
Fredericton, N.B.

Dear Ms. Crocker,

Attached are our findings and recommendations relative to the preservation of the collections of the Faculty of Law Library. These recommendations are based on the survey conducted by me of your Library on June 15th, 1977.

Before we point out several deficiencies in the environment of your library, we would like - very briefly - to point out some of the causes of the deterioration of library and archival materials. They are several: light; atmospheric conditions - including air pollution and unfavorable temperatures and humidity; biological factors - including mold growths, insect pests and rodents; mechanical damage and acid. It is not possible to consider temperature independently of humidity. If there are wide fluctuations in either, more damage is caused than by constantly high or low readings of the same. Physical failure of materials is caused by the expansion and contraction due to temperature variations. High temperatures and humidity encourage the growth of fungi and increase chemical decomposition. High temperatures dry out adhesives, leather and paper. Ultra-violet radiation from unscreened fluorescent lighting and visible light cause fading, discoloration and embrittlement of library materials.

From our survey we discovered the following deficiencies in the library's environment, factors which militate against the permanency and durability of your collections:

- (1) TEMPERATURES EXTREME, WITH CONSIDERABLE YEARLY FLUCTUATIONS. Optimum temperatures for library materials that will at the same time provide health and comfort for people is in the range of 68-70°F. The temperatures in the various rooms of your library were far above this optimum level to the point where accelerated

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Atlantic Conservation Centre  
236 St. George Street  
Moncton, N.B. E1C 1W1

Centre de Conservation de L'Atlantique  
236, rue St. George  
Moncton (N.B.) E1C 1W1



deterioration of library materials begins. Because of the sensitivity of organic materials to moisture change, Relative Humidity in libraries should be kept reasonably constant - 45 to 55% is desirable. Above that, mold growth is encouraged; below it, paper becomes brittle, wood warps, and leather reacts unpredictably. Although the relative humidity of the Law Library on my visit was within the range there is no guarantee that it will be during the winter months in that you have no air-conditioning systems, only an air circulation system. Our strongest recommendation for the improved environment of your library is to maintain an air-conditioning system operating not just during the summer months, but day-in, day-out 365 days a year. This will be a giant step forward in prevention of library material degradation. And in those areas unaffected by this air conditioning system, we urge the installation of smaller humidifying units (in the "Bowling Alley").

(2) UNFILTERED RADIATION EMANATING FROM FLUORESCENT LIGHTING, AND HARMFUL RADIATION FROM NATURAL SUNLIGHT THROUGH LIBRARY WINDOWS.

Both the artificial and natural lighting in the Law Library are causes of damage and degradation to certain parts of your collection. Throughout the Library, at least in some rooms on each floor, there is harmful ultra-violet radiation from the unprotected fluorescent tubes. In addition, there is injurious radiation from the natural light coming through many of the unshaded windows - especially in the large and handsome Main Reading Room. The fluorescent tubes throughout the building should be screened by plastic filters available for that purpose (see attachment A - low cost sleeves can be obtained from Solar Screen, Inc.). Also we advise that the large windows in the Main Reading Room be coated with Sun-X or similar type protective coating (see attachment B). In other parts of the building, we suggest that prudent use be made of the blinds and curtains to screen as much of this natural sunlight radiation as possible.

(3) SOME INADEQUATE HOUSEKEEPING.

Dust particles act as nuclei around which form H<sub>2</sub>O and SO<sub>2</sub> from the atmosphere. This produces acid which when it comes into contact with the surfaces of your books and paper will cause degradation and discoloration. It is clear that a periodic house cleaning is necessary to free your collections from this harmful dust contamination. This housecleaning procedure is clearly explained in Carolyn Horton's Cleaning & Preserving Bindings and Related Materials, of which you have a copy.

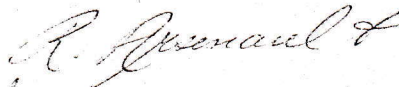
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(4) LACK OF PREVENTIVE CARE OF LEATHER BINDINGS.

The dust and powdered leather found on the bookshelves require immediate attention. Although some of these leather covers have passed the point of recovery, those that have not should be subjected to a program of cleaning and treatment with Potassium Lactate and leather dressing at regular intervals (see attachment B).

If these above deficiencies as we have outlined them are corrected you will have taken a step toward making your collections of more permanent and lasting use to the students and professors of the Law Library.

Sincerely yours,



 CHARLES A.E. BRANDT  
Conservator  
Paper

CAEB/ra  
Encs.



Survey Form A  
(General)

Place

Address Faculty of Law Library, University of New Brunswick  
P.O. Box 4400, Fredericton, N.B. E3B 5B3  
Date of Survey June 15, 1977 By Charles A.E. Brandt

Architecture

Type of building Neo-Georgian  
Roof Tar & Gravel  
Site Suburban, Campus of University of N.B.

Heating System

Oil: Hot Air

Air Conditioning (or humidity control)

System that circulates air (used during summer months)

Building Security

Commissionaires

(a) Burglar alarms 2 Exit Doors which cause light to shine at circulation desk when open.

Doors No

Windows No

(b) Fire alarm No

Heat sensors No

Smoke sensors No

Automatic extinguishers No

Portable extinguishers No

(c) Insurance Yes

Staff

Number 5 full time; 1 part time; 6 part time during schoolyear.

Experience in conservation

No

Conservation facilities

No

General Remarks

Place

Address Faculty of Law Library, University of New Brunswick  
P.O. Box 4400, Fredericton, N.B.

Date of Survey

June 15, 1977

By

Charles A.E. Brandt

Room

Main Reading Room

Location

length 60 ft. width 40 ft. Height 25 ft.

temperature 80 degrees F. Relative humidity 51 per cent

SO<sub>2</sub> penetration \_\_\_\_\_

Room Contains

Stored

Law Reports and Legal Encyclopedia  
on wooden oak shelves.

Illumination:

natural:

Some: Large windows on North & West Sides.

artificial

Yes (Fluorescent) & some tungsten.

u.v. control

No

Heat Arrangement

Oil: Hot Air

Humidity Control

Circulating Air

General Security (theft and vandalism)

Fire Hazards

electrical:

No

Heating:

No

Water Risks

plumbing:

No

Steam pipes

No

building leaks

No

Evidence of:

Insects	No
Fungi	No
Rodents	No
Temperature extremes	Yes (80!)
Humidity extremes	No
Photochemical effect	Yes

Recommended changes

Climate control: No temperature or moisture control.

House Cleaning: Should have systematic cleaning.

Treatment of Leather Books.

Lighting: UV Filters.

Window drapes should be pulled.

Repairs: Don't use white glue.

Don't use pressure sensitive tape.



Place

Address

Faculty of Law Library, University of New Brunswick,  
P.O. Box 4400, Fredericton, N.B.

Date of Survey

June 15, 1977

By

Charles A.E. Brandt

Room

Secondary Reading Room

Location

length 60 ft. width 40 ft. Height 12 ft.

temperature 81 degrees F. Relative humidity 52 per cent

SO<sub>2</sub> penetration \_\_\_\_\_

Room Contains

Periodicals & Treatises & Monographs

Stored ~~in~~ on Metal Shelves.

Illumination:

natural: Yes: curtains not drawn

artificial Yes: Fluorescent

u.v. control No

Heat Arrangement

See Main Reading Room Survey Form B.

Humidity Control

" " " " " "

General Security (theft and vandalism) (Same as Main Reading Room)

Fire Hazards

electrical: No

Heating: No

Water Risks

plumbing: No

Steam pipes No

building leaks No

Evidence of:

Insects	No
Fungi	No
Rodents	No
Temperature extremes	Yes
Humidity extremes	No
Photochemical effect	Yes

Recommended changes

Same as Main Reading Room.





Evidence of:

Insects	No
Fungi	No
Rodents	No
Temperature extremes	Yes
Humidity extremes	No
Photochemical effect	Yes

Recommended changes

(Same as Main Reading Room)

(Also Same in so called "Bowling Alley" Corridor.)