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# Behind-The Times

*A Newsletter of Loyola University of Chicago Archives*

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We welcome Glenn Lane to the pages of Behind-The Times as guest writer. As Director of Facilities Operations & Maintenance, Mr. Lane is concerned with the maintenance of a pleasant working environment for Loyolans. He and his staff have also worked closely with the Archives staff to provide proper environmental conditions for the permanently valuable records for which the Archives is responsible.

Michael J. Grace, S.J.  
University Archivist

## FURTHER THOUGHTS ON PRESERVATION

By Glenn Lane

Environmental issues affect the preservation of records and documents that archivists are charged with maintaining. Heating, cooling, and lighting are main elements of the environment. A pleasant setting for reading and use of printed material depends upon well designed rooms, furnishings, and colors as well as proper control of these environmental elements. Yet, not all elements of a comfortable human environment are good for books and records.

Archivists have solved some of the conditions that contribute to the deterioration of books and other paper documents. The use of non-acid process paper has greatly reduced deterioration. Monitoring and controlling temperature and humidity in storage areas contributes to the longevity of these books and records. Employing deacidification processes to neutralize the acid paper in old and rare books and records has been a tremendous benefit in keeping them in good condition. Despite these measures, deterioration continues. Attention thus focused on another environmental element: lighting.

In the past, Loyola's archival records were stored in a room where the light was turned off, the door was closed, and the records came out only upon special request. Thus, damage from lighting was not a concern. Today, the archives are open to all inquiries, and the records which document our history are exposed to light on a much more regular basis.

Though all lighting is to some degree damaging, the most harmful to archival materials and books is ultraviolet. Found in largest measures in natural sunlight, it is present in the next highest quantities in fluorescent lights, particularly the cool white variety. It causes the fading of inks and the deterioration of paper, photographs, textiles, wood, paintings, leather, and other organic materials. This fact had been an ongoing concern, especially because the only lighting present in the office and storage areas of the Archives is fluorescent.

The challenge: to eliminate ultraviolet rays while maintaining the lighting level necessary for a pleasant working environment. This proved easy enough in the stack areas. There the Facilities Department installed ultraviolet filtering sleeves around the fluorescent lighting tubes, effectively eliminating 95% of these damaging rays. But these did not work in the office and researcher areas where the fluorescent

tubes are recessed in fixtures in the ceiling behind light diffusers where there is not enough room to accommodate the ultraviolet filtering sleeves.

Several alternatives were considered. Ultraviolet filtering diffusers darkened the room too much for reading. Ideal were lighting tubes that do not emit ultraviolet rays and provide a better working environment than fluorescent tubes, but they proved too expensive and the supply too difficult to control. At last, an experiment with ultraviolet filtering plexiglass sheets cut to fit behind the light diffuser proved successful. Today, these sheets are installed behind all the diffusers in the Archives work areas. With damaging ultraviolet rays virtually eliminated, archival records are effectively protected, and a pleasant working environment is still maintained.

Sooner or later most discussions will touch on money, and the following information is no exception. As we were researching lighting levels and methods to eliminate the ultraviolet rays, we also discovered that the ballast that runs the fluorescent lighting could be adjusted and its operations reduced in cost. Further research revealed that almost \$20.00 per year, per fixture could be saved by installing energy saving ballasts.

This not only reduced the cost of maintaining lighting, but also reduced the heat build-up associated with the old type ballast. This is an important factor in air conditioning costs. The less heat you have to remove during the air conditioning season, the cheaper it will be to air condition the space. During the winter months, by adjustment of the air mechanical system, our saving on air conditioning was maintained because we were able to recirculate the heat within the space we were maintaining. It is projected on a national average to cost in excess of \$2.00 worth of energy per year to maintain 1 square foot of space in a library. This may not seem like much until you start to look at an occupied space and use a calculator to arrive at the cost of providing space.

With the efforts of the archives staff and the cooperation of those who provide the heating and cooling comforts of the environment, the total environment conducive to maintaining our archives and promoting its longevity has been established and maintained - and significant savings were instituted in the process!

#### **A FURTHER WORD FROM THE UNIVERSITY ARCHIVIST**

My sincere appreciation to Glenn Lane for his contribution to the newsletter on a topic which is important to all of us. Writing of Glenn Lane reminded me of his staff which helps us all so graciously, and so to that staff, thank you!

Even though 1989-1990 Semester II ended over two months ago (behind-the times!), I want to mention our student assistants who help us more than they now know. Our graduates are Kristin C. Condon (Business) and Margaret T. McShane (CAS) who were great workers. Kristin is headed toward the business world, and Margaret will return to the Rome Center as a resident assistant. Terence P. Joyce (Business) and William Lum (CAS) will return, hopefully, as the first, four-year student workers.

To all our readers, thank you for helping us to build a richer archives.

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