The purpose of this paper is to assist students who wish to study book and paper conservation in North America. It describes how conservation training is achieved here, and is supplemented with basic bibliographies.

Modern conservators represent a blend of science and meticulous craftsmanship with an emphasis on stabilization and preservation of artifacts. Greater importance is placed on the soundness and long-term benefits of a treatment than on aesthetics. Today's conservator prepares examination reports, treatment proposals, and treatment reports with photographic documentation. He or she uses a wide variety of nondestructive chemical tests and analytical instruments to carry out the work. Manual skills are essential as is a broad knowledge of related fields such as art history, chemistry, and organic chemistry.

What specializations are there in the conservation field?

While this paper is oriented toward the training of book and paper conservators, other specializations within the conservation field include painting; photographs, audio-visual media; textiles; furniture; sculpture; ceramics and glass; industrial and transport objects; musical instruments; natural history; archaeological and anthropological materials and sites; monuments; historic architecture and sites; wall murals; conservation science and research; exhibition and transport; environmental assessment; preservation administration; disaster preparedness, and others.

Conservation practice

In 1989, the salary level of technicians or assistants ranged from $10-20,000 per year. Full conservators, whether products of apprenticeships or graduate programs, earned approximately $20-30,000 per year.
Senior conservators or conservation supervisors may earn from $30-45,000. The AIC Newsletter is a good source to learn what jobs are available and the salary levels in conservation. The conservation field is new; and as public awareness develops, it is expected that salaries will increase. However, there is a long way to go before salaries reach a level comparable with other professional fields.

**Graduate Program Training**

There are two approaches to conservation training: graduate program training and apprenticeship training. Each approach has its advantages and disadvantages and both have produced some outstanding conservators. Recently there has been a clear shift from apprenticeship training to more structured academic programs.

Generally speaking, attending a graduate program is a faster route, gives a wider view of the field, usually a higher salary, and provides the graduate with a base line of expertise. This known level of expertise is useful for employers (who are often program graduates) and facilitates movement from one conservation laboratory to another. Graduates are exposed to a wide range of training including conservation science, conservation technology, physics of materials, adhesives, and paper as well as art history. Graduates also belong to a supporting national network through their university training.

The graduate programs each have their specific admission requirements. They generally require an undergraduate degree, with classes in basic chemistry, organic chemistry, art history, studio art, and an English requirement. In addition, it is expected that students will have a conservation portfolio and pre-program conservation experience in a conservation laboratory. Some of the schools require Graduate Record Examination (GRE) and for foreign students a Test of English as a Foreign Language. All of them require a personal interview before final selection, usually three to five months before the beginning of the first semester in July or September.

In the four major schools, Buffalo State College, University of Delaware, New York University, and Queens University, approximately ten students are selected each year. As a result, entry is extremely competitive. However, if you are selected there is generally very good financial support with stipends and reduced tuition.

The graduate programs offer training in specific areas only. For example, Buffalo State College specializes in painting, paper, and objects. The University of Delaware specializes in objects, art on paper, photography, furniture, and textiles. New York University offers a Master's Degree in Art History followed by a Certificate in Art Conservation. Queens University in Ontario, Canada, offers painting, objects, and paper/book conservation courses.

Most graduate programs feature a one-year formal internship as a part of their program. These internships are available only to students enrolled in a graduate program and are often called "third-year internship."

There are also fellowships and fourth-year internships for students who have a Master's Degree and wish to develop expertise in specific areas of conservation or research. The Mellon Fellowship Grant, or the Conservation Analytical Laboratory Fourth Year Fellowship (CAL, Smithsonian Institution) are examples of these.

**Apprenticeship Training**

Apprenticeship training allows one to develop manual and observation skills from working generally on a one-to-one basis with a senior conservator. Through day-to-day experience, the student develops a very practical and expedient approach to conservation.

Criticism of apprenticeship training focuses on the absence of a broad integrated conservation viewpoint, and the limited views and experience to which the student is exposed. The apprentice usually spends several years working with one or two senior conservators. Within the framework of a single institution, he or she will develop skills and progress through the ranks, resulting in a conservator who meets the needs of a specific laboratory.

Frequently large institutions, such as the Library of Congress, train their own technicians. This in-house training is usually a predetermined sequence of work experiences directed by the senior conservator or supervisor. This type of training is usually supplemented with local, national, and international workshops and courses.
Aside from these, there are no formal professional apprenticeship training programs. Instead, a student can pursue a series of informal training periods in various conservation laboratories, developing skills on a voluntary basis until he or she finds employment in a laboratory with in-house training. These voluntary internships are sometimes called pre-program training if the student intends or is continuing to apply to a graduate program. The student volunteer may become a paid entry-level assistant or conservation technician through this process. Technician duties include preparation of paste, buffer solution, matting and hinging, encapsulation, boxing and simple repairs.

**Beginning Conservation Training**

Each conservator will have their own particular route of training. However, most begin with convincing a conservation trainer that they are serious about the profession and volunteering. In the conservation laboratory, manual skills and a talent of observation are developed. The student gradually develops a portfolio for treatments containing examination reports and treatment reports with photographic documentation. This portfolio, regularly updated, is an invaluable record and resource during student training and subsequent career in conservation.

In selecting a conservation laboratory or conservation trainer, it is important to consider the size of the laboratory staff, the type of artifacts under treatment, and the equipment and materials available. Also of importance is the pressure of the work. Conservation training is very labor intensive and most conservators prefer to conserve rather than teach. Conservators in private practice are often unable to teach because of the financial sacrifice implied. Other concerns in selecting a site is how well rounded the training experience will be? What will the student's duties be?

**Where to receive training?**

There are many different kinds of conservation laboratories that treat book, art on paper, and archival materials. Naturally, some of these laboratories are found in libraries, museums, universities, archives, regional laboratories, small institutions, and private conservation laboratories. The AIC Newsletter and the Resource Section of this paper may help you to locate potential student training positions since openings are seldom advertised and are limited.

The first criteria is to select a conservation laboratory that specializes in your area of interest or interests. The type of work you will be doing, the payment, and duration should be clear. It is important to know what the work flow or pressure to perform treatments is. For example, regional laboratories are primarily funded by the collection of fees for work performed, as are private laboratories. On the other hand, the staff of large institutions such as libraries, museums, and archives not driven by fee collection have less intensive work pressure. As a result, a student can expect greater variety and less pressure to produce.

The size and specialization of the laboratory staff is also a concern. For example, regional conservation laboratories often have a large staff of trained professionals working on a very wide variety of materials which may include oversize materials, such as maps, architectural drawings, art on paper, archival materials, photographs, and books. Large government institutions such as museums generally have separate conservation laboratories for painting, art on paper, and objects rather than one large one. Private conservation laboratories can provide good opportunity for training; however, they are usually smaller and generally have limited resources. Nonetheless, they may be able to provide employment and have a more flexible work schedule. Before making a selection, it is always wise to get in touch with previous students who have studied at the same laboratory.

Some of the conservation laboratories listed in the Resources accept volunteers and feature pre-program training. Some of these laboratories have programs for a specific length of time. For example, the Folger Shakespeare Library has a three-month training period while the Library of Congress lasts one year. In applying, it is wise to ask the laboratory to hold your application on a waiting list. Conditions change constantly in laboratories, depending on new projects, funding, and staff changes. Persistence will often pay off.

**Practical Information on Visas**

Obtaining a United States Visa-J1, Visa-F, or Visa-H3 is far easier and provides more options if you have a supporting institution making your arrangements such as a Fulbright Scholarship, Carl Duisberg Foundation, Rotary Club International or other organization. Obtaining a visa as a private person to study in the United States can be a very lengthy procedure, and the visa may be restricted to one specific location and time. Certain government institutions such as the Library of Congress have regular international exchange programs and routinely process visas for students.
Financial Aid

Graduate programs generally support their students while they are in the program with a stipend and reduced tuition. Conservation laboratories may be able to pay you an hourly wage or commission; others, such as the Library of Congress, provide no other compensation beyond the training experience. The ideal situation is to be part of an international exchange program such as the Fulbright Foundation provides. Many academic international exchange programs are unfamiliar with nonacademic conservation training and will require supporting information to process an application.

Conclusion

The advantage of studying in North America is a broadening of your experience to encompass diverse viewpoints, procedures, techniques, and materials. In developing contacts with other professional conservators in any country there is the satisfaction of a shared dedication.

Acknowledgements

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SELECTED BIBLIOGRAPHY


American Library Association, Resources and Technical Services Division. Preservation Education Directory. Chicago: ALA.


Some Organizations and Agencies

American Institute for Conservation of Historic and Artistic Works (AIC)
1400 16th Street, N. W., Suite #340, Washington, D. C. 20036 (202)332-6636

American Association of Museums (AAM)
1225 Eye Street, N. W., Suite #200, Washington, D. C. 20005 (202)289-1818

American Institute of Architects (AIA)
1735 New York Avenue, N. W., Washington, D. C. 20006 (202)626-7452

International Institute for Conservation - Canadian Group (IIC-CG)
Box 9195, Ottawa, Ontario, Canada K1G 3T9

National Institute for the Conservation of Cultural Property, Inc. (NIC)
A & I - Room 2225, Smithsonian Institution
Washington, D. C. 20560 (202)357-2295

National Parks Service (NPS), Curatorial Services
P. O. Box 37127, Washington, D. C. 20013-7127 (202)343-8142

National Trust for Historic Preservation (NTHP)
Office of Preservation Services
1785 Massachusetts Avenue, N.W., Washington, D. C. 20036 (202)673-4054

Conservation Degree & Internship Training Programs

U Undergraduate G Graduate
P Postgraduate D Degree
I Internships C Courses

Art Conservation Department
Buffalo State College
230 Rockwell Hall, 1300 Elmwood Avenue, Buffalo, NY 14222 (716)878-5025

Art Conservation Program
University of Delaware and Henry Francis du Pont Winterthur Museum
303 Old College, University of Delaware, Newark, DE 19716 (302)451-2476

Art Conservation Programme
Queen's University, Kingston, Ontario, Canada K7L 4N6 (613)545-2156

Canadian Conservation Institute
Training and Information Division, Department of Communications
1030 Innes Road, Ottawa, Ontario K1A 0C8, Canada (613)998-3721

Center for Conservation and Technical Studies
Harvard University Art Museums, 32 Quincy Street, Cambridge, MA 02138 (617)495-2392

Some Regional Conservation Laboratories

Columbia University, Graduate School of Architecture, Planning & Preservation
206 Fayerweather Hall, New York, NY 10027 (212)854-3518

Conservation Analytical Laboratory
U, GI, PI, C Training Program, MSC, Smithsonian Institution, Washington, D. C. 20560 (301)238-3700

Conservation Analytical Laboratory/Johns Hopkins University
Department of Materials Science & Engineering, Rm. 102, Maryland Building, Johns Hopkins University, Baltimore, MD 21218 (301)313-6760

Conservation Education Programs
Columbia University, School of Library Service, 516 Butler Library, New York, NY 10027 (212)854-4178

Conservation Center, Institute of Fine Arts
New York University, 14 East 71st Street, New York, NY 10021 (212)772-5800

Conservation Center for Art and Historic Artifacts
Glen Ruzicka, Director
264 S. 23rd St.
Philadelphia, PA 19103

Conservation Education Center
Ann Russell, Director
100 Brickstone Square
Andover, MA 01810-1428

Conservation Ransom Humanities Research Center
Box 7219
Auburn, TX 78713

Some Libraries with Conservation Laboratories

Balboa Art Conservation Center
Attn. Janet Ruggles Director
P.O. Box 3755
San Diego, CA 92103

Center for Conservation and Technical Studies
Henry Lie, Director
Harvard University Art Museums
32 Quincy St.
Cambridge, MA 02138

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Conservation Ransom Humanities Research Center
Box 7219
Auburn, TX 78713
Library of Congress
Conservation Office
101 Independence Ave. S.E.
Washington, D.C. 20540

Folger Shakespeare Library
Conservation Laboratory
Frank Mowery
201 E. Capitol St. S.E.
Washington, D.C. 20003

Yale Conservation Studio
Gisela Noack
Yale University Library
P.O. Box 1603A Yale Station

Harry Ransom, Humanities
Conservation Department
Box 7219
Austin, TX 78713

University of Michigan Library
Conservation Department
837 Greene St.
Ann Arbor, Michigan 48104

Newberry Library
Conservation Department
60 W. Walton St.
Chicago, IL 60610

Harry Ramm, Humanities
Conservation Department
Box 59
Austin, TX 78713

University of Picrinc Library
Conservation Department
305 North Jackson
Pittsburgh, PA 15260

Some Museums with Conservation Laboratories

Yale Center for British Arts
Conservation Laboratory
1080 Chapel St.
New Haven, CT 06520

Walters Art Gallery
600 N. Charles St.
Baltimore, MD 21201

National Museum American Hist.
Conservation Department
Smithsonian Institution
Washington, D.C. 20560

L.A. County Museum of Art
Conservation Department
5905 Wilshire Blvd.
Los Angeles, CA 90036

Philadelphia Museum of Art
Conservation Department
P.O. Box 7646
Philadelphia, PA 19101

Philadelphia, PA 19101

Metropolitan Museum of Art
Paper Conservation Department
1000 5th Ave.
New York, NY 10028

Museum of Modern Art
Paper Conservation Dept.
11 W. 53rd St.
New York, NY 10019

National Portrait Gallery
Conservation Department
Smithsonian Institution
Washington, D.C. 20560

National Museum of Amer. Art
Conservation Department
Smithsonian Institution
Washington, D.C. 20560

National Archives and Records Administration
Document Conservation Branch
7th and Pennsylvania Ave. N.W., B-1
Washington, D.C. 20408

British Columbia Archives and Records
655 Belleville St.
Victoria, Canada
V8V 1X4

American Philosophical Society
Conservation Department
105 S. 5th St.
Philadelphia, PA 19106