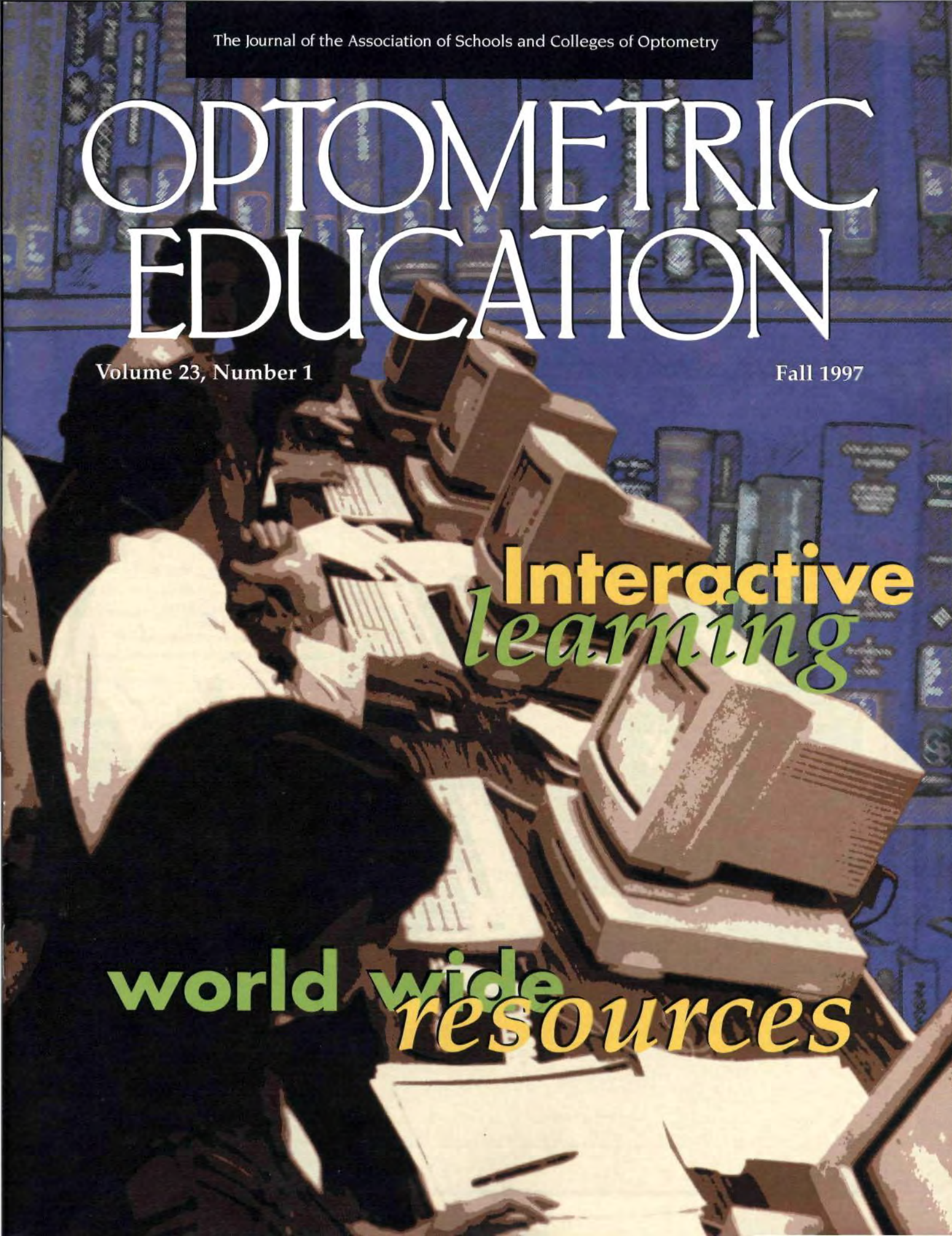
The Journal of the Association of Schools and Colleges of Optometry

OPTOMETRIC EDUCATION

Volume 23, Number 1 Fall 1997



Association of Schools and Colleges of Optometry

The Association of Schools and Colleges of Optometry (ASCO) represents the professional programs of optometric education in the United States, Canada and a number of foreign countries. ASCO is a non-profit, tax-exempt professional educational association with national headquarters in Rockville, MD.

OFFICERS AND MEMBERS

President
Dr. Jerald W. Strickland, Dean
College of Optometry
University of Houston
Houston, Texas 77204-6052

President-Elect
Dr. Alan L. Lewis, Dean
Michigan College of Optometry
at Ferris State University
Big Rapids, Michigan 49307

Vice-President
Dr. Anthony J. Adams, Dean
University of California-Berkeley
School of Optometry
Berkeley, California 94720-2020

Secretary-Treasurer
Dr. Ann E. Augsburger, Dean
University of Alabama at Birmingham
School of Optometry
Birmingham, AL 35294

Immediate Past President
Dr. Beatrice L. Lewis, President
Pennsylvania College of Optometry
Philadelphia, Pennsylvania 19141

Executive Director
Martin A. Wall, CAE

*Dr. Jack W. Bennett, Dean
Indiana University
School of Optometry
Bloomington, Indiana 47401

*Dr. Larry R. Clausen, President
The New England College of Optometry
Boston, Massachusetts 02115

*Dr. William E. Cochran, President
Southern College of Optometry
Memphis, TN 38104

*Dr. Alden N. Haffner, President
State College of Optometry
State University of New York
New York, New York 10010

Dr. Hector Santiago, Dean
Inter American University
of Puerto Rico
School of Optometry
San Juan, Puerto Rico 00919

*Dr. Lesley L. Wolfe, President
Southern California College
of Optometry
Fullerton, California 92831

*Past Presidents

Dr. Charles Mahon, President
Illinois College of Optometry
Chicago, Illinois 60616

Dr. John Schroeder, Dean
The Ohio State University
College of Optometry
Columbus, Ohio 43210

Dr. Ralph Garcia, Interim Dean
University of Missouri-St. Louis
School of Optometry
St. Louis, Missouri 63121

Dr. David Loshin, Dean
Nova Southeastern University
Health Professions Division
College of Optometry
Ft. Lauderdale, Florida 33328

Dr. George K. Foster, Interim Dean
Northeastern State University
College of Optometry
Tahlequah, Oklahoma 74464

Dr. Leland W. Carr, Interim Dean
Pacific University
College of Optometry
Forest Grove, Oregon 97116

Affiliate Members
Dr. Jacob Sivak, Director
University of Waterloo Optometry
Waterloo, Ontario, Canada N2L 3G1

Dr. Pierre Simonet, Director
University of Montreal Optometry
Montreal, Quebec, Canada H3T 1P1

Dr. Carlos Hernando Mendoza, Dean
Universidad de Lasalle - Optometria
Bogota, Colombia

Dr. William Monsco
Director, Optometry Service
Veterans Health Administration
Washington, D.C. 20420

Dr. W. C. Maples, President
College of Optometrists in Vision
Development
P.O. Box 285
Chula Vista, California 91912

Dr. Joseph Sullivan, President
Optometric Extension Program
Foundation
1921 E. Carnegie Avenue
Santa Ana, CA 92705

ASCO Sustaining Members
1997

The Diamond Circle
CIBA Vision Corporation
Vistakon

Sponsors
Vision Council of America
Varilux Corporation

Friends
Bausch & Lomb
Sola Optical USA
Transitions Optical
Corning
Wesley Jessen
Alcon Laboratories

Members
Dicon
HPSC
Humprey Instruments
Luxottica Group
Marchon/Marcolin Eyewear
Paragon Vision Sciences
Polymer Technology Corporation
Reichert Ophthalmic Instruments
Storz Ophthalmic
Sunsoft Corporation
Titmus Optical
Tura, L.P.
Volk Optical

As of September 1997

Editorial Review Board

OPTOMETRIC EDUCATION

ISSN 0098-6917

VOL. 23
NO. 1

CONTENTS

FALL
1997

The Journal of the Association of Schools and Colleges of Optometry

SPECIAL FEATURE

The Virtual Vision Library

Descriptions of the 17 libraries of the schools and colleges of optometry — their collections, changing uses of technology and special features.

DEPARTMENTS

Photo Credits: Cover photo and design and photo, page 10: Jennifer Steele, formerly at the University of Indiana and presently with Centricon, a technology consulting company in Bellingham, Washington.

MEMBER

OPTOMETRIC EDUCATION is published by the Association of Schools and Colleges of Optometry (ASCO). **Managing Editor:** Patricia Coe O'Rourke. **Art Director:** Carol Nansel, CLN Associates. Business and editorial offices are located at 6110 Executive Boulevard, Suite 510, Rockville, MD 20852 (301) 231-5944. **Subscriptions: JOE** is published quarterly and distributed at no charge to dues-paying members of ASCO. Individual subscriptions are available at $20.00 per year, $25.00 per year to foreign subscribers. Postage paid for a non-profit, tax-exempt organization at Rockville, MD. Advertising rates are available upon request. OPTOMETRIC EDUCATION disclaims responsibility for opinions expressed by the authors. Indexed in Current Index to Journals in Education (ERIC). Article copies, 16mm microfilm, 35mm microfilm and 105mm microfiche are available through University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

Guest

EDITORIAL

Vision Librarians and the Virtual Vision Library

Douglas K. Freeman, M.L.S., M.A.

"The digital library... is really a library with extensive electronic collections in a variety of forms in different locations."*

Within the past quarter century the function of librarians has changed from that of passive keepers of the storehouse of knowledge to active intermediaries between information and information consumers. While the popular perception of librarians might still lag behind the reality, it inevitably will change as librarians continue to champion the causes of the virtual library and the information superhighway.

To understand how the role of librarians has changed, one must understand the revolution that libraries have experienced. For centuries, libraries have been viewed as specific buildings in specific geographical locations, containing mostly print materials that could be used by only one person at a time. Items in use by one person were not available to others. If you wanted information from an item that the library did not own you either had to go to a library that owned it or ask your librarian to borrow the item using the traditional mechanisms of interlibrary loan, which usually operated at something akin to glacial speed. Literature searches could take days, and researchers could drink endless cups of coffee trying to make sense of their handwritten note cards.

However, with the emergence of modern electronic technologies, every aspect of library service has been affected, and library users can benefit immensely. Librarians have redefined their roles and revamped their libraries in order to incorporate the benefits of the tremendous progress in computer technology and telecommunications that have taken place in recent years. There has been an enormous increase in the use of computers in libraries, and today computers—not books—are librarians' most important tools, although books and journals are still our primary stock in trade. Using our new technologies we now can do a much better job of connecting you with the information that you need than we could do as recently as five years ago—or even last year, for that matter.

Vision librarians are experts at using such resources as electronic journals, online indexes, electronic mail, fax technology, and the World Wide Web to find the information that you need and deliver it to you promptly. We have almost reached the point where it is irrelevant where the information is housed as long as the librarian can track it down, capture it, and place it before you. It now matters little that the article needed by an optometry professor or a practicing optometrist is in a library thousands of miles away. Using the appropriate electronic tools the item in question can be on my desk in an hour or less. If you have the right equipment in your office I can route it directly to your desktop, and you can read it while drinking your coffee. The efficiencies generated by modern technologies allow me to use my time more efficiently than was possible in bygone days. Many such queries can be handled in minutes instead of hours; therefore, I can handle many more of them than I could in the past.

Thus, libraries and librarians have been redefined by the electronic revolution. Our libraries should no longer be viewed as archives containing a certain quantity of books and journals. You should view us as gateways to information, regardless of its location. Libraries are now a service, not a place. Perhaps the information you seek does not even exist in print form: an increasing number of publications appear ONLY in electronic form. No problem; the vision librarian will track it down for you somewhere within the virtual vision library.

The virtual vision library is composed of the information housed in ALL vision libraries as well as all vision-related information located in cyberspace. However, despite the importance of its physical and electronic infrastructure, there is one other critical component, without which the virtual vision library could not reach its potential. That component is human: the highly competent and motivated vision librarians comprising the Association of Vision Science Librarians (http://spectacle.berkeley.edu/~library/AVSL.HTM). Founded in the 1960's by a small group of progressive librarians, our spirit has been cooperative since the beginning. Fortunately, tech-

(Continued on page 9)

ACUVUE®

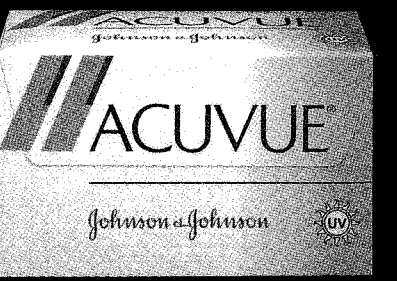
IS CHANGING THE INDUSTRY.

AGAIN.

INTRODUCING
UV BLOCKING AND INSIDE-OUT "AV" MARK

- UV blocking – blocks up to 95%* of harmful UV rays[1]
- "AV" mark – simplifies handling[1]

UV blocking is also featured on 1-DAY ACUVUE® Daily Disposable Contact Lenses and SUREVUE® 2-Week Daily Wear Contact Lenses.



AS VISIONARY TODAY AS THE DAY IT CHANGED THE INDUSTRY

REFERENCE
1. Data on file, Vistakon.

* Up to 95% of UVB and 70% of UVA.

WARNING: UV-absorbing contact lenses are not substitutes for UV-absorbing eyewear such as UV-absorbing goggles or sunglasses. Persons should continue to use their protective UV-absorbing eyewear as directed. NOTE: The effectiveness of wearing UV-blocking contact lenses in preventing or reducing the incidence of ocular disorders has not been established at this time.

VISTAKON™ Johnson & Johnson Vision Products, Inc., P.O. Box 10157, Jacksonville, FL 32247-0157

OPHTHALMIC INDUSTRY NEWS

Companies appearing on these pages are members of ASCO's Sustaining Member Program. Sustaining Members are listed on the inside front cover of each issue. Membership is open to manufacturers and distributors of ophthalmic equipment and supplies and pharmaceutical companies.

Wesley Jessen Publishes "First Practice Profiles"

As part of its "First Practice Program," Wesley Jessen has developed a 16-page publication to help fourth-year optometry students and recent graduates assess their career options.

"First Practice Profiles" reports on who's choosing what jobs, the pros and cons of major practice options and how to surf the Internet for positions. It also profiles eight career paths including private practice partnership, ophthalmology practice associateship, corporate practice, purchasing a private practice, HMO practice, contact lens specialty practice associateship and academic.

Other articles provide advice on "Getting Out of the Red," "Optometry As a Second Career," "Women Achieving Parity," and an interview with AOA President Michael D. Jones, O.D., on "Focus Forward, But Remember the Past."

"As new O.D.s enter the profession, we want to help them make the best career choice. We also want them to know that there are many willing to help them - established doctors who act as mentors, corporate optometry organizations that provide training and assistance, and Wesley Jessen," said Dwight H. Akerman, O.D., director, professional services, Wesley Jessen.

"First Practice Profiles" will be distributed to the schools and colleges of optometry through Wesley Jessen's sponsorship of the lecture series "Find the Practice of Your Dreams." It will also be distributed to those looking to recruit young O.D.s.

Wesley Jessen's "First Practice Program" enables recent graduates, upon establishing their first practice, to receive Wesley Jessen products valued in excess of $2,600. For additional information, contact Dr. Dwight Akerman, Wesley Jessen Corp. (847) 294-3263.

Bausch & Lomb Survey Stresses Importance of Regular Eye Care

A nationwide survey, sponsored by Bausch & Lomb and conducted by Opinion Research Corporation International, was part of an ongoing consumer awareness campaign about the benefits of comprehensive eye care held in September during Eye Care Professionals' Month. It explored Americans' awareness of the critical role vision plays in daily life and attitudes and behaviors surrounding eye care. As part of this special program, Bausch & Lomb partnered with eye care professionals across the nation to increase public understanding about the benefits of regular eye exams and the proper use of contact lenses and lens care products.

"Many people take their eyesight for granted and don't realize that routine eye exams cannot only preserve their vision but, in some cases, can save their lives," said Alan P. Dozier, corporate vice president and president, Bausch & Lomb North American Vision Care. "We are proud to partner with thousands of eye care professionals to make a positive difference in the lives of our consumers. Eye Care Professionals' Month is yet one more demonstration of Bausch & Lomb's long-term commitment to helping consumers see, look and feel better."

The survey findings underscore the need for public education regarding proper health and the role an eye care professional can play in healthy vision care and protection.

For further information contact Dr. William T. Reindel (716) 338-8129.

Marchon Collection Grows

Now numbering over 60 styles, Marchon's Flexon collection continues to grow as a collaboration of function portrayed with fashion and attitude. New styles include a range of flattering pastel colorations on two feminine silhouettes. Styles Accuflex 148 and 149 feature graceful endpieces and jewelry-like temple treatments. Colorations for style 148 include cashmere brown, autumn blue, tortoise/GEP and cafe. Style 149 comes in tones of misty lavender, pink oval and cashmere brown.

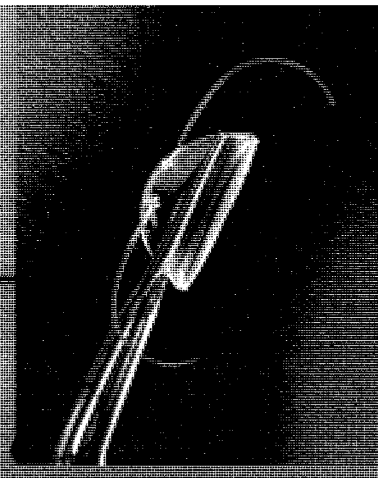
Essilor Offers Lab Workshops

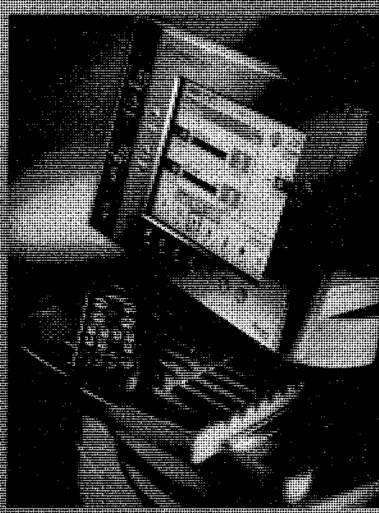
In an effort to help its wholesale laboratory customers enhance their management and employee development skills, Essilor of America is initiating a program of business-building workshops known as Essilor Advantage.

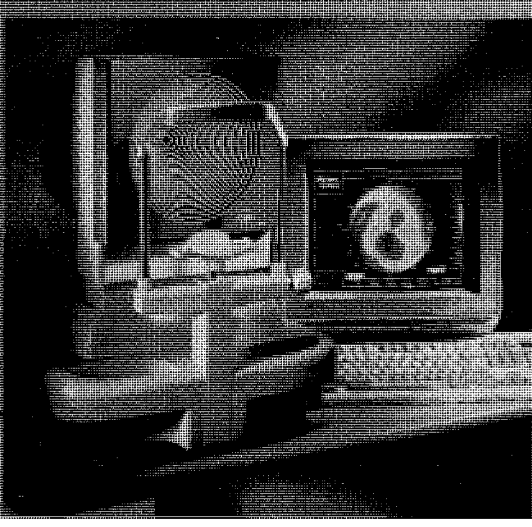
The program is free of charge to Essilor customers. The curriculum consists of 12 workshops which Essilor conducts on-site at the labs.

"Due to the outstanding response from our (test market) results, as well as the demand for additional progrms, we hired a full-time Advantage Consultant, Linda Eschenburg, a welcomed addition and great asset to the Essilor team," said Judy Boyer, director of training and development. "Our goal with the Essilor Advantage program is to be recognized in the industry as the educational leader." ■

ALCON®
Keeping Your Future In Sight™

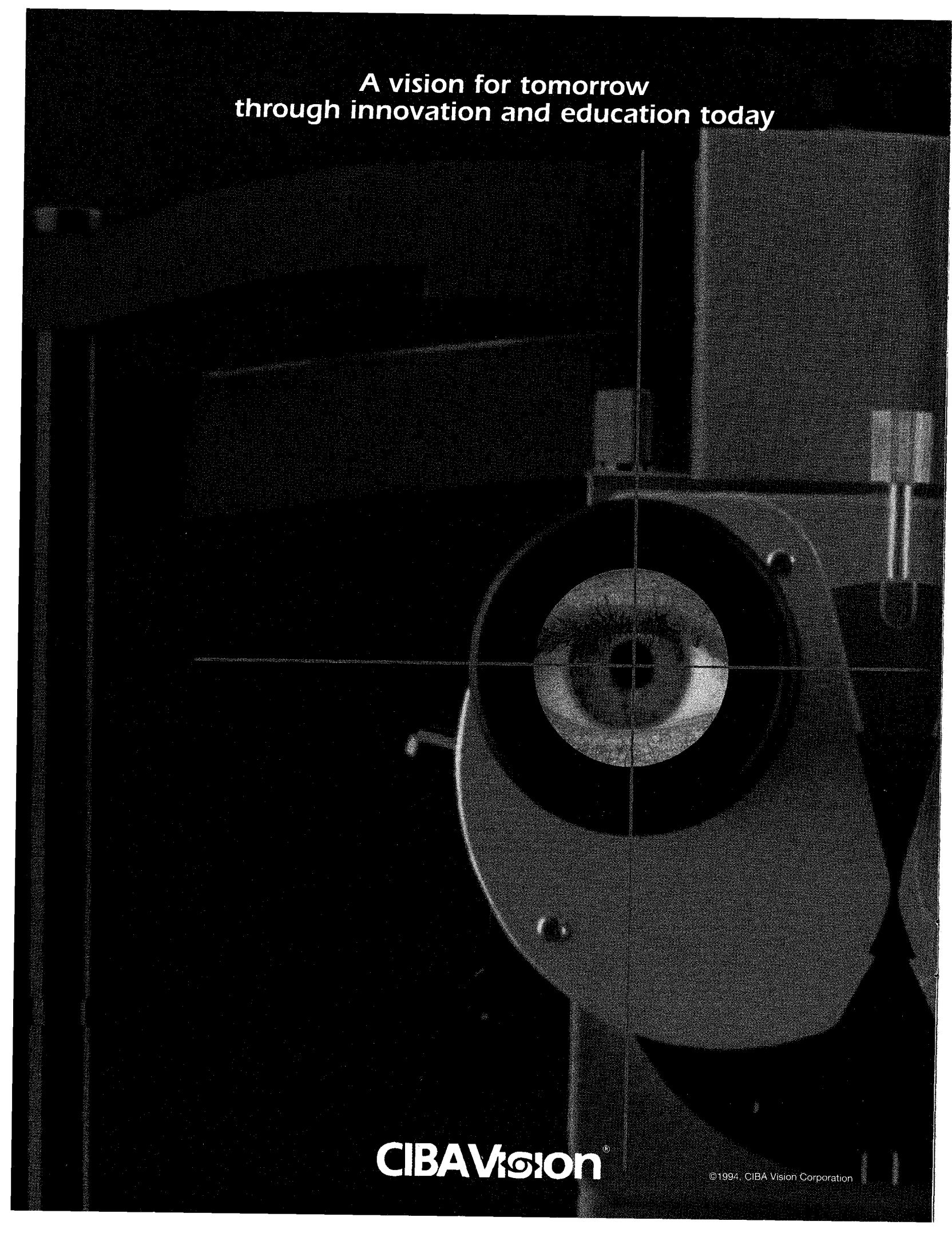






- A worldwide company committed to the discovery, development, and manufacture of ophthalmic products and instrumentation.
- Over the next 5 years, Alcon will invest close to $1 billion in eye-related research and development. That's an investment in your future.
- Alcon is uniquely positioned to continue its aggressive course of developing and producing the most innovative products and technologies.

Alcon®
LABORATORIES


A vision for tomorrow
through innovation and education today
CIBAVision®
©1994. CIBA Vision Corporation

Editorial

(Continued from page 4)

nology has now caught up with that cooperative spirit. Our libraries are located in seven countries and are interconnected electronically; our members share a common mission to improve access to vision information. We are dispersed geographically, but collectively we work to connect vision professionals, students, and the general public with the information that they seek. We are comprised of librarians in optometry schools, ophthalmology departments, hospitals, professional organizations, and industry. Our collective resources comprise the major portion of the virtual vision library. A request for information received by one of our members can appear on the desks of ALL of our members within seconds, thanks to the internet, and we all can bring our resources to bear on the request within minutes. This attitude of mutual support among AVSL librarians is the *sine qua non* of the virtual vision library and is what makes its members highly effective information providers.

The next time that you as a practitioner, educator, or student find that you need to know:

- what is the latest research on ocular herpes?
- what was the origin of the visual acuity charts used in the ETDRS?
- what are some good websites related to vision and the eye?
- what journal was that paper published in last year by "you know, the woman whose last name begins with B and who does research on contact lenses?"

Ask your vision librarian to seek it out in the virtual vision library. We might just find the answer before you finish your coffee. ■

Douglas Freeman is chair of the Association of Vision Science Librarians and head of the library and director of technology at the Indiana University School of Optometry. He coordinated this special issue of Optometric Education.

• *Information Infrastructure Task Force. Committee on Applications and Technology. "Libraries and the NII: DRAFT FOR PUBLIC COMMENT."* http://iitfcat.nist.gov:94/doc/Library.html

ASCO Meeting Calendar '97-'98

December 1997

11th — Public Affairs Directors Dinner with Dr. Carl Kupfer, NEI (San Antonio, Texas)

12th — ASCO/AOA Executive Committees (San Antonio, Texas)

12th — Development Directors Workshop (San Antonio, Texas)

12th — ASCO/Academy Symposium on External Clinical Training (San Antonio, Texas)

12th — Optometric Informatics Organizing Group Breakfast (San Antonio, Texas)

13th — Sustaining Member Advisory Committee Breakfast (San Antonio, Texas)

13th — Continuing Education Directors SIG Breakfast (San Antonio, Texas)

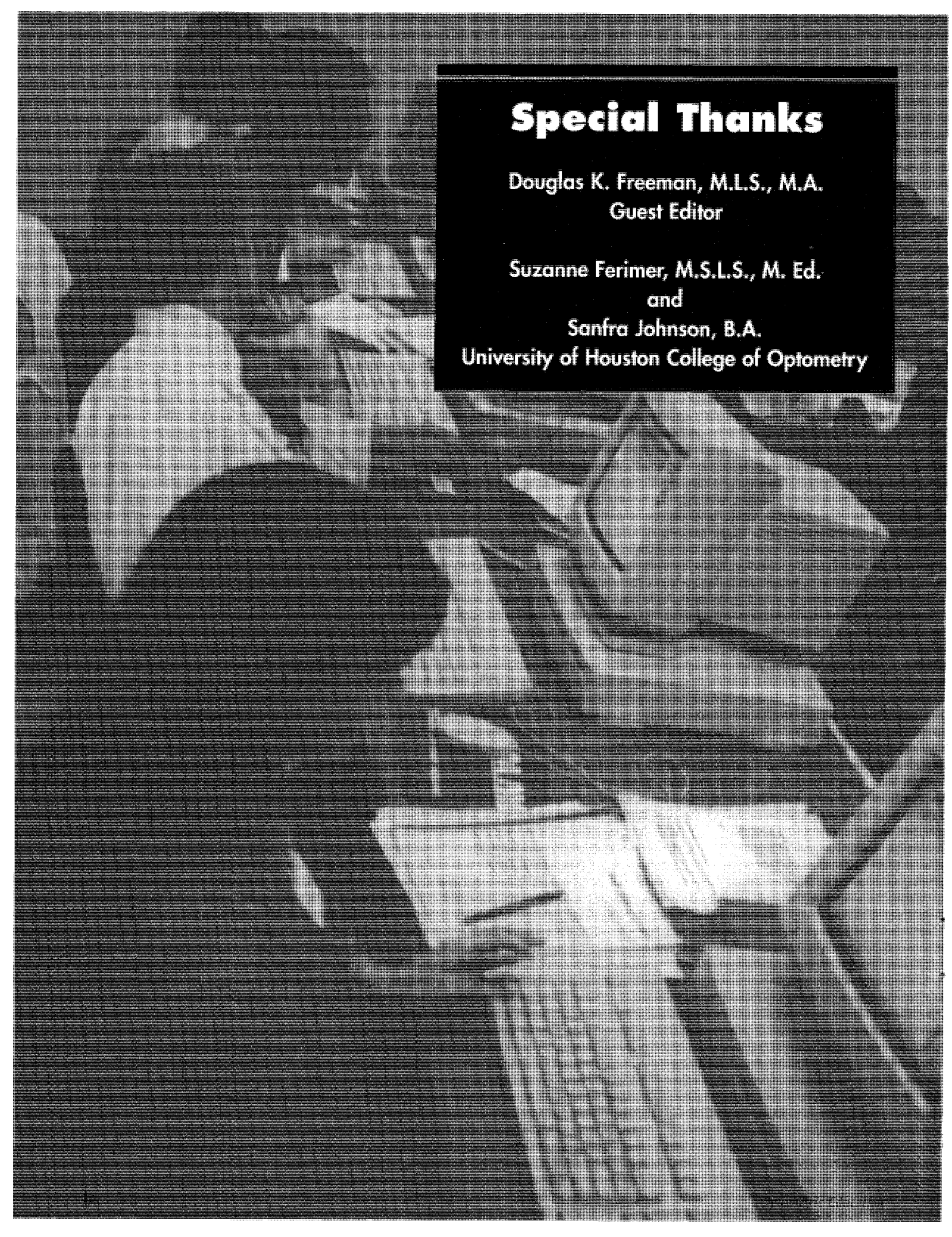
14th — Residency Educators SIG Breakfast (San Antonio, Texas)

March 1998

20th — Executive Committee (Houston, Texas)

20th-22nd — Critical Issues Seminar (Houston, Texas)

For the most up-to-date information on ASCO meetings, contact ASCO's website at http://www.opted.org



Special Thanks

Douglas K. Freeman, M.L.S., M.A.
Guest Editor

Suzanne Ferimer, M.S.L.S., M. Ed.
and
Sanfra Johnson, B.A.
University of Houston College of Optometry

Library Services on the World Wide Web — a New Kind of Audience

Paul Pietsch, Ph.D.

The Optometry Library at Indiana University conducts literature searches on various neuroscience topics for publication on the World Wide Web. These "web sites" receive more than 2,000 "hits" each month from readers around the world.

In July of 1995, I began to publish an anthology on the World Wide Web, called ShuffleBrain[1] from one of its titles. Focused mainly on mind-body questions, the collection includes works of varying length and genera, some previously published, others brand new. The site also contains a miscellany on the recent literature attending a dozen rare, but serious brain disorders. Most articles in ShuffleBrain attract the kind of readership libraries have attracted ever since some thoughtful Babylonian of third millennium Nippur began collecting and cataloging clay tablets of information. But the miscellany has summoned a patronage that may very well be unique to the information superhighway.

The first issue of ShuffleBrain included a few feature articles on the famous split-brain research of Roger Sperry and others, wherein disconnecting the cerebral hemispheres leaves essentially two independent personalities within the same head.[2] The split-brain operation (cerebral commissurotomy), has been used since the 1960's to treat drug-resistant epilepsy. Thus what was originally a laboratory curiosity extends to humans.[3] Today "lateralization" as the consequences of split-brain surgery are collectively called, is a major topic in the neurosciences.[4]

Almost immediately after ShuffleBrain went public, I began to receive large amounts of e-mail from the parents of children with brain damage, most notably agenesis of the corpus callosum (ACC), a birth defect that mimics split-brain surgery. To provide my correspondents with a cogent reply, as well as for my own edification, I asked the Optometry Library at Indiana University to conduct a comprehensive search on ACC in the National Library of Medicine's electronic data base (MEDLINE). The result was several hundred literature references, complete with abstracts: a veritable treasure chest of high grade information for anyone with an abiding interest in the topic (presumably the parents and physicians of children afflicted with ACC).

As a convenient means of transmitting the data via the internet, I marked up the files in HTML (i.e., programmed the data for the World Wide Web) and sent the URLs (internet address codes) to my correspondents. Virtually as an afterthought, I also listed these files on my contents page.[5]

The webmaster at the Indiana University Computing Service monitors client web sites for use by the outside world and makes these "hit" data available on a monthly basis. Examining the first report, I could hardly help but notice that the sites with literature on ACC had received several hundred visitations; the trend persisted. In time, I began to receive requests for information on other relatively rare disorders. Often, the requested item was inadequately treated in the textbooks; frequently it was randomly scattered on the World Wide Web; and almost without exception, the request was accompanied by an urgent plea for help. With the expert collaboration of the Optometry Library's head, Douglas Freeman, and his assistant, Anne Foster, these topics, along with ACC, have become a regular part of ShuffleBrain's miscellany.[6] Moreover, the Optometry librarians would have the search completed and back to me within 24 hours. Not only was the search comprehensive, it was also very timely.

The MEDLINE packager, SilverPlatter, has given permission to publish the searches on the web. A brief summary of the disorder, plus links to other web sources, heads each new miscellany entry. Also, some topics are updated periodically from a floppy disc version of Current Contents, which Anne Foster monitors every week.

Is the expenditure of effort and resources worthwhile? While I doubt the question can be directly assessed, I have been looking into the corollary question of how much attention the miscellany items attract. During May, 1997 (for which the most recent data are available), ShuffleBrain had 45,123 hits.[7] Of that number 2,724 (some 6 % of the total) were to files containing literature searched by either Freeman or Foster. During the latter period, the average requests per day for all files was 1,456. Thus, extrapolating from the percentage of the total, the Optometry Library's professional research activities have served some 87 persons per day, world wide, via just one web site. In the era before the web, an audience of this magnitude would have swamped the resources of an individual writer, but would have been far too minuscule to justify the attention of even a small institution. ■

References

1 http://wwwindiana.edu/~pietsch/home.html
2 Sperry, R W. Lateral specialization in the surgically separated hemispheres. In The neurosciences third study program, ed. by F. O. Schmitt and F. G. Worden, MIT Press, Cambridge, 1974, pp. 5-20.
3 Gazzaniga, M S., The bisected brain, Appleton-Century Crofts, New York, 1970.
4 Gaddes, W H. and Edgell, D. Learning disabilities and brain function, Springer, New York, 1994.
5 http://wwwindiana.edu/~pietsch/agenesis00.html
6 http://wwwindiana.edu/~pietsch/contents.html#miscl
7 http://wwwindiana.edu/~pietsch/nisdata/9705-total-usage.htm

Dr Pietch is professor emitus at the Indiana University School of Optometry. Optometric Education asked Pietsch to write about his experience as a researcher with a college of optometry library.

Illinois College of Optometry

Contributed by:	Gerald Dujsik, M.A.L.S., Librarian
Library:	Carl F. Shepard Memorial Library
Date Founded:	1955
Professional librarians, FTE:	4.0
Computer specialists and support staff, FTE:	2.0
Hourly or student help, FTE:	3.1
Estimated number of volumes in collection	21,561
Website Address:	www.ico.edu

The Illinois College of Optometry, the oldest and largest school of optometry, began in 1872 as the Chicago College of Ophthalmology and Otology. In 1955, after several mergers and name changes, the Northern Illinois College of Optometry and the Chicago College of Optometry merged to form the Illinois College of Optometry. The library is in its third location within the College in forty years. In 1983, the library and media services merged to form the Learning Resources Center. Both departments moved into the present 21,700 square foot facility in 1984-85.

The library occupies almost 18,000 square feet of space with seating for 232 people. It is open 103 hours a week during the school year. The book collection consists of over 13,400 monographic titles and over 21,560 monographic volumes. In addition, the library subscribes to 243 current subscriptions, owns over 5,800 bound periodicals, has over 3,000 microforms, and owns more than 200 videos and over 200 slide programs. It contains more than 100 computer programs and CD-ROM programs.

In 1988, the library installed software on the College computer to provide online catalog and online circulation services. The library provides the usual library services of reference, interlibrary loan, circulation, etc. The real key to the collection and the information resources available to the College community are the services provided by the four librarians. For seventy-two hours a week during the school year, a librarian is available to help users. National, regional and local relationships with other libraries and librarians improve the library's capacity to meet the needs of our clientele. Special efforts are made to locate information and verify reference citations for the faculty who are authors and journal editors.

In 1990 computers for student use were added to the library. Other software available to the students includes optometric practice management programs, TPA reviews, histology reviews, illusions, and various CD-ROM programs. The library supports both Macintosh and Windows compatible computers.

Media Production services are provided from the Learning Resources Center. Location and still photography are provided upon request to faculty. The ophthalmic photographer shares the film processing equipment with the media staff. The department provides slides for the teaching faculty for off campus teaching. Most faculty use Powerpoint to make classroom presentations. Three lecture rooms have data/video projectors installed. The media staff shoot and edit videotape presentations for the College and produce posters for faculty presentation at professional meetings.

The library meets the needs of 600 students and over 75 full- and part-time faculty. In addition, reference, circulation, and interlibrary loan service is provided to active alumni of the College. The librarians also respond to telephone requests from the local community and provide information that best meets the community's needs from within the collection.

VAL: Because the optometric literature is not well indexed, the library created VAL which stands for Vision Articles onLine. This unique service is an online index to the vision science literature. Since 1984, the librarians have been indexing all periodicals received in the library for optometric, ophthalmic, and vision science related articles in the 245 periodicals that are received. The articles can be searched by author, periodical title abbreviation, keywords or any combination thereof. This searching ability was made available to the students and faculty in 1988. In 1998, the library expects to improve the search engine to allow more rapid retrieval and eventual access via the internet.

Internet: The library applied for and received a National Library of Medicine Internet Connection Grant in 1996. In joint cooperation with the Information Systems Department, the library has been the leader in getting intermediate connectivity for students and faculty for several years. Internet and other computer classes will be offered to students and faculty in 1997-1998. ■

Indiana University School of Optometry

Contributed by:	Douglas Freeman, M.L.S., M.A., Librarian
Library:	Indiana University Optometry Library
Date Founded:	1967
Professional librarians, FTE:	1.0
Computer specialists and support staff, FTE:	1.0
Hourly or student help, FTE:	1.5
Estimated number of volumes in collection	19,000
Website Address:	www.opt.indiana.edu/html/library.htm

A plaque at the door of the Indiana University Optometry Library recognizes Noah A. Bixler, O.D., (1884-1959) whose own book collection together with contributions which he solicited from others became the library's nucleus.

Today the IU Optometry Library holds approximately 19,000 volumes. It is amply suited for its role as the principal provider of vision-related information services to the faculty and students of the School of Optometry, to its alumni, to Indiana optometrists, and to the general public.

We attempt to collect books, journals, and other materials in every conceivable subject area relating to vision, and the overall collection is particularly strong in the areas of optometry, color vision, physiological optics, ocular anatomy, ocular physiology, ocular pathology, neurology, contact lenses, opticianry, and therapeutics. We currently subscribe to 166 journals, and we add approximately 500 volumes to the collection each year.

Although we invest considerable effort in acquiring traditional print materials, we concentrate on the delivery of intensive, technology-based information services to our users. A growing number of contacts between library staff and users are electronic, instead of face-to-face, with transactions taking place over electronic mail. Services range from quick "ready reference" responses to complicated literature searches requiring hours of staff effort and tapping the resources of any number of other vision libraries as well as our own. One of the most satisfying of our activities is the provision of information to our alumni after they leave school and begin the practice of optometry. Using electronic mail and fax technology we are able to support many of their information needs from a distance.

With continued escalation in the cost of books and journals we have had to acknowledge that we cannot acquire and house all of the materials required to support our mission. However, through the use of new technologies and cooperative organizations such as the Association of Vision Science Librarians we can provide timely access to practically any vision-related information, regardless of its location. Thanks to the access possibilities afforded by modern technology, the geographic location of information is becoming increasingly irrelevant. Through the use of fax machines, the World Wide Web, and electronic mail, AVSL member libraries frequently satisfy the information requirements of their students and faculty in scarcely more time than it would take if the information were located in the home library.

Modern technologies have other implications for optometry students. The Optometry Library is fully integrated into the electronic infrastructure of the School of Optometry. The Head of the Library also serves as Director of Technology for the School, and this partnership serves to enhance access to information. The availability of the library's resources no longer ends at the library door, since students and faculty can connect electronically to the library (and in fact to many libraries) or even to a librarian from their home computers, from the School's computer cluster, from other computer clusters on campus, from faculty offices, or from a number of other locations.

Using electronic resources, the Optometry Library's staff can serve students more efficiently than ever before. For instance, during 1997 we will introduce a web-based "virtual tour" of the School's electronic resources which will be available to all students, staff, and faculty. Faculty are beginning to make their course materials available to students by putting them on "electronic reserve" within the library, and many faculty members are developing electronic instructional modules to supplement classroom instruction. All of these materials are available in the school's computer cluster, which is adjacent to the library. Indiana University's online catalog is available to any user with access to a computer, and other resources such as MEDLINE, VISIONET, and dozens of other electronic indexes are available to students from within the library. ■

Inter American University of Puerto Rico School of Optometry

Contributed by:	Amarilis Noriega, Librarian
Library:	Center for Access to Information (CAI) "Centro Acceso A La Informacion"
Date Founded:	1982 (Optometry added in 1992)
Professional librarians, FTE:	1.0
Computer specialists and support staff, FTE:	2.0
Hourly or student help, FTE:	1
Estimated number of volumes in collection	6,880
Website Address:	www.optonet.inter.edu

The Inter American University of Puerto Rico was founded in 1912. The School of Optometry was founded in 1981, and in 1992 it was the last unit to be included as part of Inter American University.

The CAI (Library) opened in 1982 and is located on the third floor of the school occupying 3,387 square feet. The CAI is open Monday to Thursday from 7:30 a.m. to 11:00 p.m., Friday from 7:30 a.m. to 6:00 p.m., and Sunday from 11:00 a.m. to 5:00 p.m. The librarians assist 150 students, 14 full-time professors, 28 part-time faculty, in addition to employees and visitors. Use of the CAI is generally higher in the evening when students are not in lectures or labs.

An information guide is prepared by the Library Director. The guide includes general information about the CAI. The CAI address, telephone and fax numbers, e-mail address, hours, loan policies, rules and regulations, design and layout, and an explanation of the National Library of Medicine Classification system. The guide is helpful to the students during their four years at the school. The CAI offers Bibliographic Instruction to first year students at the beginning of the semester. This information is also available to individuals at any time.

The library has three full-time employees: the director who is charged with the overall operation of the library, a staff member in charge of the circulation and reserve collections, and the third member of the staff who is in charge of journals and serials. All staff help with audiovisuals, computers, and reference questions. Additionally, four work-study students assist in the CAI.

The CAI operates with the Sirsi-Unicorn Library System. An on-line catalog is located at the front entrance of the library. The CAI has a Electronic Resource Center with six computers and three printers. Recently, new equipment was acquired which includes: a tower, a scanner, a server and two additional computers. In the near future there will be twelve computers and a printer for every two machines. Another tower will be purchased to handle the more than twenty CD-ROM titles owned by CAI. Each employee has their own computer and share two printers.

The collection at present consists of 261 titles in Video, 238 titles in Audio-Tapes, 41 titles in Slide programs, 11 titles in Bound Serials, Books: Reference Dictionaries (77 titles), Reference (644 titles), Reserve (737 titles), Circulation (1,767 titles). Eventually it is plannned to change most of the books, journals, and other material types to electronic information sources or CD-ROM technology, because of the CAI space limitations.

The CAI has a Museum that occupies various showcases. The collection consist of books (rare or old), contact lenses, spectacles, glasses, instruments, photos, paintings, and literature about the development of optometry in Puerto Rico.

A Steering Committee composed of distinguished members of the profession, along with the Library Friends, Faculty, students and the CAI Director helps in the developing of the CAI (Library) plans. ■

Michigan College of Optometry at Ferris State University

Contributed by:	Maureen Watson, M.S., Librarian
Library:	Michigan College of Optometry Reading Room
Date Founded:	1979
Professional librarians, FTE:	0.5
Support staff, FTE:	0.0
Hourly or student help, FTE:	0.0
Estimated number of volumes in collection	1,300
Website Address:	www.ferris.edu/htmls/colleges/optometr

Ferris State University has three facilities to aid students, faculty, vision science professionals, and the community: the Optometry Reading Room, the Health Sciences Library, and the Timme Library. The Optometry Reading Room specializes in vision science and is in the same building as the Michigan College of Optometry. The Health Sciences Library is in a separate building near the optometry, pharmacy, and allied health programs and the Timme Library is the main library in the center of the campus.

The Optometry Reading Room has existed since 1979. It was originally organized by Dr. Jim Saladin and staffed with student help. In 1987 I was hired to oversee operations and student workers. The reading room is open 36 hours per week from Monday through Thursday. Under the leadership of Dean Alan Lewis, Dr. Jim Paramore, and Dr. Jim Saladin, it has recently been expanded from three rooms to six rooms, including a multimedia classroom, reading area, A-V room, book and journal storage area and computer lab. The multi-media classroom has a video projector, computer hookups, large monitors, and equipment for clinic simulations. The computer lab has eight new Pentium computer work stations that are connected to the campus backbone. Through these terminals optometry and opticianry students have access to e-mail, the library local area network (LAN), Internet and MEDLINE as well as Microsoft Office programs.

CD-ROM software is being purchased. Anatomy programs such as Slice of Life and Human Anatomy are used by first-year students. CDs on eye disease are also available and the contact lens videodisc program, originally developed by Dr. Gerald Lowther and Dr. Glen Hammack, is still used to supplement contact lens instruction. In addition, a new CD is being developed by Ferris State faculty members: Dr. Randy Vance, Tom Schumann and Jeff Gabalis. The topic of this CD-ROM is Binocular Indirect Ophthalmoscopy and it will be available to the FSU community as well as ODs for continuing education credit. New technology will also allow student and faculty access to patient record information via new clinic software and computers.

The Health Sciences Library (HSL) opened in 1992 and houses the main book and journal collections for the health programs. In addition to degree programs in optometry and opticianry, Ferris State also offers degrees in the health fields of pharmacy; nursing; health care systems administration; health information management; dental hygiene and technology; industrial and environmental health management; medical laboratory technology; nuclear medicine technology; radiography; respiratory care; applied biology; and biotechnology. There are subscriptions to approximately 450 periodicals including over 65 vision science journal titles. The book collection includes 11,000 volumes of which around 1300 relate to vision science.

Several indexes to the medical literature are available at the HSL. Visionet, the index produced by Nancy Gatlin at the Southern College of Optometry, is available in paper format. MEDLINE, CINAHL, International Pharmaceutical Abstracts, and the Health Reference Center are all available in CD-ROM format. All of these CDs, general reference CDs, OCLC's First Search, and the automated Online Public Access Catalog (OPAC) are accessible from four computer terminals in the HSL as well as over the library's local area network.

The HSL has a state-of-the-art bibliographic instruction room with nine laptop computers and a video projector with a computer. This room is used to teach student and faculty groups search strategies for Medline and other indexes. There is also group instruction for using the Internet.

The Timme Library has a large general collection with over 275,000 volumes, 4,000 periodical subscriptions, and various CD-ROM and paper indexes. There are large business and legal sections as well as collections in the arts, sciences and technology. In 1998, Ferris State will begin building a new 50 million dollar library in the center of campus which will house both the Timme and Health Sciences Libraries. The new library should include all of the book and journal collections; computerized classrooms; media development and distribution centers; computer labs; and a center for teaching and learning. ■

The New England College of Optometry

Contributed by:	Esther Griswold, M.A., M.L.S. Librarian*
Library:	The New England College of Optometry Library
Date Founded:	1945
Professional librarians, FTE:	2.0
Computer specialists and support staff, FTE:	5.0
Hourly or student help, FTE:	2.0
Estimated number of volumes in collection	11,000
Website Address:	library.ne-optometry.edu

Since 1971, NEWENCO Library has been tucked around the exquisite features of the historically significant Sears house built in 1894 in Boston's Back Bay. But history is about to make room for the future as the library prepares for an extensive renovation project that will move it almost entirely out of its museum quality environment and into space designed specifically to accommodate a robust and technologically sophisticated library for the 21st century.

As plans for the new library solidify, our vision of providing access to a rich variety of vision science resources in many formats to constituencies both on and off site is beginning to materialize. The process of building the infrastructure for our new information environment is underway. The library's "virtual" availability will be possible in large part because of the SIRSI Unicorn system for library automation which the library will install in July 1997. Among its many useful features, one of the most prominent is its World Wide Web-based catalog through which faculty, staff, alumni, and other interested constituencies will have access to resources available in NEWENCO Library, as well as to various bibliographic databases and the Internet.

The new facility itself promises to offer a mix of group and quiet study spaces, both comfortable and more formal seating, ample access to computers and electronic resources, a user education classroom, and space for books, journals and special collections. Also, in contrast to its current "stand-alone" location, the library will be physically connected to the rest of the college and centered at the heart of campus life and activity. The new library will, in fact, have the unique advantage of existing in close proximity to the new cafeteria as a way to acknowledge and encourage strong synergy between academic and social life on campus. This has, in turn, stimulated the possibility of establishing an "Internet cafe" to be shared by the library and the cafeteria.

The library also exercises a leadership role in the planning and implementation of information technologies at the College and is responsible for:

— managing the Academic LAN, Internet Services, the Computer Center, and Slidemaking Services;
— facilitating institutional strategic planning for Information Technology;
— troubleshooting hardware, software, and network problems for the academic sector;
— developing the College's World Wide Web site; and
— providing instruction in the use of print and electronic resources.

Stressing the role the library plays in educating users for life-long information literacy, NEWENCO librarians offer workshops to students, faculty, and staff on topics ranging from a general introduction to library and information resources to techniques for effectively searching the World Wide Web. We also participate in the first year Problem Based Learning course by teaching introductory sessions on information resources and research strategies.

In terms of collection development, we invest strongly in print materials but are ever mindful of information resources available in other formats. We are adding CD-ROMS to our circulating collection, and we are evaluating the options available to us for expanding access to Medline and other databases of particular importance to our community of users. Creation of a local database of digitized images is also being discussed.

Clearly, technology and the library have become inseparable, and the force of technology— creating a climate of almost constant change—has extended the library beyond many of its original parameters. We anticipate change and take advantage of the technologies available, incorporating them as sensibly as possible in service of the core strengths and priorities that undergird the library. We remain dedicated to enhancing the vision science knowledge base through our strong service ethic and our ongoing contribution to the methods, structures, organization, and instruction necessary to join people with information and ideas. ■

**Since writing this article, Ms. Griswold has become library director at Pine Manor College, Chestnut Hill, MA.*

Northeastern State University College of Optometry

Contributed by:	Jim Winterbottom, M.L.I.S., Librarian
Library:	The John Vaughan Library, Private
Date Founded:	1979
Professional librarians, FTE:	1.0
Computer specialists and support staff, FTE:	0
Hourly or student help, FTE:	0
Estimated number of volumes in collection	2500
Website Address:	www.nsuok.edu/jvl/ref/optres.html

In December of 1973, the Oklahoma State Regents for Higher Education were asked to undertake a feasibility study towards the establishment of a professional optometry program at Northeastern State University (NSU). Their subsequent study revealed that the state would likely face a shortage of primary vision care specialists and that an in-state optometry program should address future vision-care needs. Approval was granted for the creation of a two-year optometric education program to begin in the fall of 1979; two years later, the Board of Regents authorized the beginning of a four-year, professional program.

As with any new program, Northeastern State University's College of Optometry (NSUCO) was faced with an initial shortfall of laboratory equipment, instructional facilities and curriculum support materials - certainly the library holdings were no exception. Prior to the founding of the optometry program, Northeastern was principally concerned with undergraduate education: graduate and professional programs were limited, and this was reflected in the library's holdings. The September 21, 1978 minutes of the Board of Regents states that the "...part of the collection concerned with vision and other areas related to optometry is spotty and varies from fairly good to non-existent."

As a result, the first few years of the optometry program saw emphasis placed upon the development of a sufficient core collection. A considerable capital outlay was approved for the purchase of requisite texts, and periodical holdings were bolstered through active solicitation of publishers, optometrists and other vision science libraries in the acquisition of surplus back issues. In all, the Board of Regents authorized that $20,000 a year for a minimum of three years be spent on acquiring back issues.

The NSUCO does not maintain its own library; rather the vision science collection is housed at the university's John Vaughan Library: a three-story building originally constructed in the late 1940s and later doubled in size during the early 1960s. Total holdings number some 354,000 books and bound periodicals, as well as 2700 periodical subscriptions. Vision science holdings are integrated with the main collection, and number around 2500 monographs and 66 current periodical subscriptions. All told, the vision science holdings contain 98% of monographs listed in the AVSL's "Opening Day Collection." While budgets are no longer what they once were, periodical expenditures were budgeted for more than $14,600 in the fiscal year of 1995/96, while monographs are presently allocated a budget of over $4600 per fiscal year.

With the exception of the College of Optometry and a relatively small nursing program, NSU does not claim a broad health sciences curriculum, and while the library enjoys a strong vision science collection, it lacks an overall depth in the health sciences. Aside from a number of staple medical journals, faculty and students of NSUCO are generally dependent upon interlibrary loan services for inter-disciplinary coverage. This, however, has never been seen as a major impediment to the NSUCO community - requests are handled with efficiency and haste. The ILL office of the John Vaughan Library is a busy unit comprising one librarian, 1 ½ full-time staff and several student assistants.

The College of Optometry shares the services of a health sciences librarian with the Department of Nursing and the Department of Health and Human Performance. This librarian performs literature searches for faculty and students, handles bibliographic instruction and coordinates collection development for the College of Optometry. In addition, the health sciences librarian addresses the research needs of optometry residents throughout Oklahoma and the four-state area, and assists local optometrists and ophthalmologists with their literature searches.

The John Vaughan Library has long made use of the VTLS catalog, and will gradually be updated to the Windows-based, EasyPAC version. The library catalog and CD-ROM-based periodical indexes are networked and, therefore, available across campus. The library provides an array of indexes to the NSUCO community, the most pertinent being Internet Grateful Med, CIHAHL Biological & Agricultural Index .and VISIONET. ■

Nova Southeastern University College of Optometry

Contributed by:	Janice Gottlieb, M.S., M.L.S., Library Director
Library:	Health Professions Division Library
Date Founded:	1980; Optometry added in 1989
Professional librarians, FTE:	5.0
Computer specialists and support staff, FTE:	4.5
Hourly or student help, FTE:	4.0
Estimated number of volumes in collection	44,000
Website Address:	www.nova.edu/cwis/hpdlibrary

In 1989, an optometric school was born at Southeastern University of the Health Sciences. This birth caused the expansion of the existing osteopathic medical and pharmacy library to encompass vision science materials as well. In the eight years of its existence, the College of Optometry has grown to serve 400 students, 41 faculty, and seven residents. The library has undergone other major changes: the collection of additional resources to serve new dental, public health, physical and occupational therapy programs; the merger in January 1994 with Nova University to form the new Nova Southeastern University (NSU), which resulted in the renaming of our section of the university to Health Professions Division (HPD); and the library's relocation in June, 1996 from North Miami Beach to the Davie, Florida campus of the former Nova University. Now, HPD students and faculty have access to resources at the NSU Main and Law Libraries. Additional space in the new HPD Library facility provides for more student seating, stacks, current periodical shelving, copiers, and 24 group study rooms, all of which are equipped with videocassette players and monitors. We now have 1,343 serial titles, 146 of which are specifically vision. Moreover, we subscribe to AudioDigest/Ophthalmology, and we own over 1,100 videocassettes. We also have slide sets, such as the Ciba collection and Spalton's Slide Atlas of Clinical Ophthalmology, available for faculty use in teaching.

Possibly the greatest improvement from the user's viewpoint is in the technological arena. The Learning Resources Laboratory, with forty networked Pentiums, has now been incorporated into the library proper. Last month, ten computer workstations were installed in the library itself, allowing patron access to Nova Southeastern's integrated online catalog, to approximately 40 of OCLC's FirstSearch databases, and to a number of key databases provided by Ovid Technologies, Inc. The databases include Comprehensive Medline, CINAHL, HealthSTAR, International Pharmaceutical Abstracts, and Embase Drugs and Pharmacology. We are most proud of our new HPD Library homepage, developed and maintained by three members of our library staff, which provides links to resources for all HPD programs. The "Publications" option connects to fulltext HPD Library publications, including our quarterly New Acquisitions list, alphabetical and subject listings of Serials, and "Optometric Library Highlights." The latter is a monthly newsletter extracting vision-related article citations from recent non-vision serials and publicizing the receipt of new vision journals and audiotapes. The HPD Library homepage is accessible via www.nova.edu/cwis/hpdlibrary.

The HPD Library is open 103 hours per week during the academic year. Last June, two clerk positions were converted to librarian status, so we are now able to offer professional reference services 81 hours per week, instead of the previous 45. Because we can now provide independent user access to databases rather than librarian-mediated access only, our librarians have begun to instruct students and faculty in small groups in the use of these resources. In addition to formal classes, the reference staff members are planning to offer voluntary database instruction and internet workshops several times a week.

A major strength of the HPD Library is the quality of its book and journal collection, as evidenced by interlibrary loan statistics. During the last two years, about 2,000 items were borrowed, and 4,800 requests were filled. The latter statistic is almost double the number of requests filled in the four previous years combined. We expect to continue that upward trend, as we further expand our collection and fill in missing issues. Titles of our books and serials are entered in OCLC's Union List. Serial titles with holdings are updated annually in SERHOLD, a regional Union List. A second telefacsimile machine was just added to the Library to facilitate receipt and delivery of interlibrary loans. It has become imperative to increase staff in this area.

Interlibrary loans are free for all NSU patrons. We have already automated cataloging, acquistions, and serials management, and are now implementing an electronic circulation system. ■

The Ohio State University College of Optometry

Contributed by:	Susan Kroll, M.L.S., Librarian
Library:	Prior Health Sciences Library
Date Founded:	1847
Professional librarians, FTE:	9.5
Computer specialists and support staff, FTE:	20
Hourly or student help, FTE:	30
Estimated number of volumes in collection	
Website Address:	bones.med.ohio-state.edu

The Prior Library completed an $8 million renovation in October, 1996. Optometry faculty and students now have access to the latest technology, as the Library increased its computers from 8 to 80 with the renovation. A web based front end is available on the computers providing instant access to the electronic catalog or health sciences databases. The statewide OhioLINK library system connecting the library's holdings of 44 colleges and universities in Ohio enables faculty and students to search for books and journals, and obtain materials locally or throughout the State within days. A computer based curriculum laboratory is also located in the Library and a committee has been formed with Optometry faculty representation to select curriculum based software.

Seven group study/conference rooms are available to support meetings and student group study, and a 40-seat classroom can also be scheduled to hold regular classes. The renovation has also increased the space available to support book stacks holding the book and journal collections. For the first time since 1972, when the Library began occupying the present building, all books and journals are on open stacks for use by faculty and students. Prior to the renovation, much of the collection was held in a storage facility due to lack of space. A new library feature is the consumer health area especially designed to provide lay-oriented books to support information needs of patients, their families and the community.

The goal of the renovation was to reach forward with technology while looking back to history. This resulted in the development of a new library department, the Medical Heritage Center. Built with private donations, the 20,000 square foot Center provides closed book stacks to hold rare books and special collections complete with a customized heating and air conditioning system which keeps the materials at the proper temperature and humidity. A research room has been built so faculty can review rare books on site. Three scholars' offices are also located in the Center and have been furnished to support visiting scholars who wish to do long-term research using the collection. The focal point of the Medical Heritage Center is the 3,000 square foot meeting room designed to support educational and social functions. Although the Heritage Center is just beginning, the Library has already developed a small, but high quality rare book collection and has an antique medical instrument collection that is nationally known.

Since completing the renovation, the Library has seen a 400% increase in the use of the facility and collection. Optometry faculty and students now have a warm, inviting facility providing up-to-date technology and improved access to the collection. ■

Pacific University College of Optometry

Contributed by:	Laurel Gregory, M.L.S., Librarian
Library:	Harvey W. Scott Memorial Library
Date Founded:	1849; (College of Optometry founded in 1945)
Professional librarians, FTE:	4.0 (one Science/Optometry Librarian)
Computer specialists and support staff, FTE:	6.75
Hourly or student help, FTE:	8.4
Estimated number of volumes in collection	15,000
Website Address:	www.pacificu.edu

Founded in 1849, Pacific University sits in the center of a quiet residential town 25 miles west of Portland, Oregon. Originally established as a liberal arts college, the University began to add several health science programs to the curriculum when the College of Optometry was created in 1945. The College of Optometry is the largest graduate program on campus with over 35 full-time faculty and 350 students. In addition to the Doctor of Optometry degree, Pacific offers a Master of Science in Clinical Optometry and a Master of Education-Visual Function in Learning. The Master in Education is offered jointly through the University's School of Education. Enrollment in the Education, Occupational Therapy, Optometry, Physical Therapy, Physician Assistant, and Professional Psychology graduate programs now brings the graduate student population to over 750 students, or 40% of the students on campus.

The Library collection at Pacific is a reflection of the University's unique blending of a small liberal arts undergraduate college and professional programs in the health sciences and education. Besides maintaining a basic clinical Optometry collection, the Library is particularly strong in interdisciplinary subjects related to Optometry - exercise and sport, learning, learning disorders, perception, psychology, reading, and rehabilitation.

In addition to books, videos, journals, and multi-media products, students also have access to the World Wide Web from any workstation on the campus network. Vision and health WEB sites are increasing in quantity and quality. Patient education resources and information from federal agencies are just a few of the useful types of information now available through the WEB. ■

Pennsylvania College of Optometry

Contributed by:	Sara Richardson, M.A., M.S., Librarian
Library:	Albert Fitch Memorial Library
Date Founded:	c1940
Professional librarians, FTE:	2.0
Computer specialists and support staff, FTE:	2.0
Hourly or student help, FTE:	3.5
Estimated number of volumes in collection	11,000
Website Address:	www.pco.edu

The Library at the Pennsylvania College of Optometry is named for Dr. Albert Fitch, who founded the College in 1919 and who was largely responsible for establishing optometry as an independent health profession in this country. Our continuing interest in the history of the optometric profession is reflected in our historical library of more than 250 ophthalmological and optometric works from the early days of the profession and in our instrument and eyeglass collection. The Fitch library serves the students, faculty and staff of the College of Optometry and those of the Department of Graduate Studies in Vision Impairment. Located just inside Fitch Hall, the college's administrative building, it consists of 5500 square feet, and has a seating capacity of 180. It is open 108 hours a week.

The full time staff consists of the Director of Library and Learning Resources, Sara Richardson; the Assistant Director and Systems Librarian, Keith Lammers; the Supervisor of Instructional Media, Ron Davidoff; and the Library Technician, Marian Weber. Approximately 20 student assistants staff the library during evening and weekend hours. The Library subscribes to 310 journals and contains approximately 11,000 volumes, primarily in the areas of optometry and ophthalmology. To assure that a wide range of resources are quickly and inexpensively available to the college community, the library belongs to several consortia which have been organized for the purpose of resource sharing and document delivery. These include, in addition to the Association of Visual Science Librarians, the Delaware Valley Information Consortium, and the Region 2 network of the National Library of Medicine.

In 1991, the Center for Computer Assisted Learning (CCAL) was established within the library. Consisting of 15 PC's and 5 MAC computers connected through a local area network, the center was used initially for word processing, tutorials and simulations. Since then, the lab has been expanded and now consists of 20 PC's and two additional printers. In 1993, the library installed an online catalog and a circulation and serials control system. At the same time, a CD-ROM tower was installed and subscriptions to Medlne and Eric purchased. These systems were connected to the CCAL network and can be used from any of the library or computer lab terminals. Other databases which have also been networked are Clinical Pharmacology, Duane's Ophthalmology and the Merck Manual. Instructors have developed patient simulation programs which are installed on the network and cases are assigned to students for course credit. The computer lab is also used by students to choose extermship sites and to try out office management software. In 1995, the Library network was connected to the campus-wide computer network so that its resources can be reached from anywhere on campus. A computer was purchased for the use of students and residents in the Eye Institute, our clinical facility, so that they can access library resources while they are working with patients. In 1996, we installed a dial-in modem pool. This makes it possible for students and faculty members to access the library's resources when they are not on campus. Two terminals within the library are connected to the Internet through our local provider and may be used by students for e-mail and Internet/WWW access. Students who want their own e-mail access purchase it through our Internet provider.

The Instructional Media section, a division of the Department of Library and Learning Resources, is responsible for the purchase and maintenance of all audiovisual equipment on the campus, including that at the Eye Institute. It assists faculty members in producing instructional materials, including preparation of Powerpoint and image slides, and posters.

When the campus moves to its new Elkins Park site in 1998, we anticipate a beautiful and spacious facility, that will have three times the amount of floor space and seating capacity, six study rooms and a significantly enlarged computer lab. The Fitch Library takes advantage of the increasing importance of computer and information science to help the health professional student and practitioner keep abreast of the growing knowledge base in health care delivery. When students complete their training, they continue to have access to our resources throughout their professional career. ■

Southern California College of Optometry

Contributed by:	Pat Carlson, M.S.L.S., Director of Library Services
Library:	M. B. Ketchum Memorial Library.
Date Founded:	pre-1939
Professional librarians, FTE:	1.0
Computer specialists and support staff, FTE:	2.4
Hourly or student help, FTE:	1.0
Estimated number of volumes in collection	10,000 books and 6,500 bound journals
Website Address:	www.scco.edu

In 1904 Dr. Marshall B. Ketchum founded the college which was to become the Southern California College of Optometry. In 1973, after merging, changing names, and relocating several times, a new campus in Fullerton, Orange County, was found. The College now operates clinics in Fullerton and Los Angeles and has formal affiliations with 80 other clinical facilities in 18 states. The staff has grown from one faculty to 100 and 10 students to 400, plus 21 residents.

The M. B. Ketchum Memorial Library was established in memory of the founder. In 1948 Grace Weiner became the first librarian. In 1970 she left to open the library at the University of Alabama, Birmingham. Mollie Sittner followed as director for five years, retired, and Pat Carlson has been director since 1975. Library staff of 3.4 (including workstudy students) helps keep the library open 90 hours per week during the school year.

The Library has one of the most complete vision science collections. Books number 10,000, journals 6,500 bound volumes and 300 current subscriptions, plus over 500 audiovisual titles. Each edition of each vision title is permanently retained as are all issues of vision journals. Additional material in education, optics, and medical sciences augments the curriculum. Patient education materials relating to the eye are also collected. Donations help add to the collection. Duplicates are shared with other libraries.

Historic items are also very important to the library. The rare book collection includes volumes from the 18th and 19th centuries. There are over 300 pair of antique eyeglasses, some dating from the 1700s. Also included are early contact lenses, ophthalmoscopes, retinoscopes, trial lens cases,and schematic eyes.

The Library supplies three times as many interlibrary loans (460 last year) to other libraries as it requests from others. All interlibrary loans are free to faculty, residents, students and staff, as they are covered by the Library budget. About 9,000 books and audiovisuals are circulated each year. A journal current awareness service is very popular and generates library photocopying of over 2,000 articles per year. This service has been expanded to residents and is a great success.

Since 1975 the librarian has been lecturing within the curriculum on literature search techniques. This year's second-year class was introduced to the Internet with a hands-on tutorial, Searching the Internet for Health Information. Library orientation sessions are also given each year for faculty, residents and staff. Faculty Institute Days and the Faculty Retreat are opportunities for providing related library information as well. In addition to reference service, author assistance, current awareness journal service, interlibrary loans, and photocopying offered faculty, residents, students and staff, the library also offers services to the community. Fee-based reference, interlibrary loan, and photocopying services are available to optical and ophthalmic companies, health care professionals, teachers, patients and others needing vision science information.

A new building is under construction. The opening is scheduled for February 1998. The Library will occupy the top floor of a two story building. The first floor will have three large classrooms. The new Library will have about 50% more floor space and will include a computer lab with 16 additional terminals, new CD-ROM technology, Internet access for patrons, as well as other new technologies. ■

Southern College of Optometry

Contributed by:	Rosemary Gordon, M.S.L.S., Asst. Library Director
Library:	Southern College of Optometry
Date Founded:	1937
Professional librarians, FTE:	2.0
Computer specialists and support staff, FTE:	1.0
Hourly or student help, FTE:	2.5
Estimated number of volumes in collection	14,947
Website Address:	www.sco.edu

The Library of the Southern College of Optometry came into being in 1937, five years after the college was founded. The library's original resources came from the personal library of the second president of the college, Dr. Wilbur R. Cramer. The current collection includes books in the areas of optometry and ophthalmology, basic science, anatomy, contact lenses, therapeutics, and psychology. The library is open 87 hours per week.

The SCO library serves 480 full-time students and 47 faculty, as well as practitioners, researchers, and manufacturers in all 50 states and 15 foreign countries. The major program that allows the library to serve this diverse group is VISIONET, the library's database of vision science literature citations. VISIONET helps fill the gap in the indexing of optometry literature, since most of it is excluded from MEDLINE, the database of the National Library of Medicine. VISIONET is the only publicly accessible database of optometric literature.

The database was begun in 1975 to provide a current awareness service for faculty. All citations were initially handwritten, but a custom computer program was written in 1976 to better manage the service and retain the records. Library Director Nancy Gatlin indexed journal articles using 3-letter subject codes she developed. Data entry was done by the library clerk and proofreading by the assistant library director. After ten years of building the database and updating it weekly, new equipment permitted the library to offer on-line access to the system via modem. This database was named LION (Library-On-Line). Further improvements in hardware and software in 1992 allowed indexing by keyword as well as by subject code. Terms relating to therapy, symptoms, and patient history may also be included when appropriate. At this time the system was renamed VISIONET.

VISIONET is currently produced by the library's three staff members and contains approximately 100,000 citations spanning more than 20 years. A weekly current awareness service is still available to the college faculty. The database is updated daily, and except in vacation periods, citations appear in the database in the same week the journals containing them are received by the library. Ms. Gatlin has been the sole indexer, thus preserving the integrity of the vocabulary. When possible, the MESH headings used by the National Library of Medicine are used as keywords. To aid searchers of the database, the VISIONET Thesaurus was compiled and is available in its second edition. The recent installation of thesaurus software will provide an on-line thesaurus. Searchers will not need to know the official term to find information on a topic.

VISIONET also serves as the college's on-line catalog for the library, including books, videocassettes, audiocassettes, slides and journal holdings. VISIONET is available on campus through two terminals in the library and via modem to off-campus users.

The library maintains a collection of audiotaped class lectures. Students have access to the tapes at the conclusion of each class. While these audiotaped lectures do not circulate, tape-duplicators are available for student use. Tapes are kept for one full quarter after the quarter in which they are taped.

The library has a special collection of nearly 7,000 individually indexed ocular pathology slides for student and faculty use. Ms. Gatlin also indexes these items, and indexing terms are currently being converted to the keywords used in VISIONET. Individual slides may be checked out by faculty or students for use in class or seminar presentations.

The Library's two major challenges involve computer technology: college network access to the library's databases and off-campus Internet access to VISIONET. Our on-campus users need direct on-line access to the library's on-line catalog and article citations database from the Learning Resource Center and from faculty offices. We are exploring the possibility of providing off-campus access to VISIONET via the Internet, either through the college or an external sponsor. These two problems are intertwined, and efforts are underway to solve them. As improvements in service are made, the SCO library continues its mission to support the college's educational programs to ultimately improve patient care. ■

State University of New York, State College of Optometry

Contributed by:	Elaine Wells, M.A., M.L.S., Librarian
Library:	The Harold Kohn Vision Science Library
Date Founded:	1971
Professional librarians, FTE:	2.0
Computer specialists and support staff, FTE:	3.0
Hourly or student help, FTE:	.8
Estimated number of volumes in collection	36,000
Website Address:	www.sunyopt.edu

Since its founding in 1971, the Harold Kohn Vision Science Library has been a vital component of the State University of New York (SUNY) College of Optometry's mission. Named in honor of Mr. Harold Kohn, long-time counsel to the American Optometric Association and the Optometric Center of New York, the Library served its first patrons under the direction of Mrs. Margaret Lewis. Beginning with only a few boxes of books, Mrs. Lewis built one of the most comprehensive vision science libraries in the country. Our comprehensive collection on optometry, ocular pathology and pharmacology, low vision, ophthalmology, opticianry and basic sciences is not only widely used by the SUNY College of Optometry community for education, research, and patient care, but is also a major resource for students from other area colleges as well as the general public. In addition, the Library's collection serves the New York metropolitan business community working on marketing, advertising, and planning of vision care services, while our resources on learning disabilities and psychology are highly regarded by individuals whose interests extend beyond eye care.

The growing demands of our constituencies, as well as the explosion of information and education technology, have presented us with both the need and the opportunity to explore more flexible ways of providing our services. Our commitment to establishing a link between the Library's resources and the needs of the SUNY Optometry community has led to the formation of the Council on Information Science and Educational Technology, chaired by the Assistant Dean for Educational Information Services. Under the Council's guidance, the staffs of the Library, Media Center, and Educational Technology Unit work together closely, sharing expertise to develop and evaluate new educational and information technologies for use in the classrooms, laboratories, and clinics. We make every effort to ensure that information is readily available where it is most needed. Toward that end, workstations with access to MEDLINE records from 1966 to the present, as well as the Library's online public access catalog, have been installed in the clinic area. In addition, all public access computers in the Library are networked to the Internet.

Timely communication among members of the College community is facilitated by a variety of electronic mail programs. Recently, we activated a new College-wide conferencing system that provides users with a self-contained environment for collaborative work using computers as a communications medium. In addition, representatives from throughout the College work with Library and Educational Technology Unit staff members to maintain and enhance the College's Home Page.

Helping our students to more effectively locate, understand, and utilize information is key to the Library's mission. Toward that end, we conduct a required course in biomedical literature that introduces the student to the organization, use and evaluation of biomedical/scientific information as it pertains to the practice of optometry. Print, electronic, and multimedia resources are explored through lectures and demonstrations as well as self-paced laboratory exercises, and the course covers basic reference works, drug handbooks, journals, and electronic databases such as MEDLINE. The Educational Technology Unit also offers workshops for faculty, staff, and students designed to enhance competence in such programs as WordPerfect, Excel, Windows, and Powerpoint Presentation software.

The staff of the Harold Kohn Vision Science Library seek to redefine the Library in a manner that transcends the traditional concept of a space where books are collected and maintained. Building upon the knowledge bases of information science and educational technology, we are creating a "learning environment without walls." This collaboration will be enhanced by the Library's move to its new headquarters in the summer of 1999, at which time we will be connected to a fully integrated, enterprise-wide network including wireless capabilities. ■

University of Alabama at Birmingham School of Optometry

Contributed by	Nancy W. Clemmons, M.L.S., A.H.I.P., Librarian
Library:	Lister Hill Library of the Health Sciences
Date Founded:	1945 (Optometry School established in 1969)
Professional librarians, FTE:	13
Computer specialists and support staff, FTE:	38
Hourly or student help, FTE:	11
Estimated number of volumes in collection	325,000
Website Address:	www.uab.edu/lister/

The Lister Hill Library of the Health Sciences, established in 1945, is a resource library in the National Network of Libraries of Medicine (NN/LM). The Library serves the faculty, staff, and students of the Schools of Optometry, Medicine, Dentistry, Nursing, Public Health, and Health-Related Professions, plus the joint basic health sciences, UAB Hospital, other affiliated hospitals, centers, and clinics, as well as health professionals throughout the state and region. In 1971 the library moved next door to the School of Optometry and the Vision Science Librarian moved into an office within the Reference Department so that she could provide assistance with reference services and collection development. The advantage of having the optometry library holdings in the general medical center library was that the students and faculty had the complete holdings of all of the other health-related sciences in addition to pure optometric literature.

Grace Weiner became the first Vision Sciences Librarian in 1970 shortly after the UAB School of Optometry was established. She was an active member of library organizations and served as Associate Editor of the *American Journal of Optometry.* Between 1975 and 1982 there were three other Vision Science Librarians: Dixie F. Liles, Deborah B. Waller, and Nancy W. Clemmons. After 1982 the library needs of the school were covered by the entire staff of the library.

The most exciting news from the University of Alabama at Birmingham is that on May 2, 1997, UAB dedicated its newly renovated and greatly expanded library. The beautiful six-story building covers approximately 90,000 gross square feet and contains state-of-the-art technology including a 30 station microlab with software for wordprocessing, spreadsheets, and graphics; a 30 station electronic classroom for classes on searching the Internet and other electronic resources; a learning technologies facility for the development and use of computer-assisted instruction modules and distance learning; and group study rooms for six to eight students, equipped with tables, marker boards, and computers with network connections. Additional public computers and numerous network connections for laptop computers are placed throughout the library. The new building relieves the space and noise problems of the past several years. Most of the furniture including the six-sided tables for computer workstations is in dark cherry.

The third floor of the building will house the Reynolds Historical Library and the Alabama Museum of the Health Sciences. In addition to its collection of old contact lenses, the Museum recently received a major collection of antique ophthalmic instruments.

Access to library services is excellent. Because of its convenient location, the Optometry faculty and staff find its collections and services easily accessible. Those who do not have time to come to the library may request items through the on campus photocopy delivery service. Optometrists throughout the state may call through a toll-free number to request information or photocopies of journal articles. Also, the library recently added subscriptions to several full-text databases that can be accessed remotely. ■

University of California - Berkeley School of Optometry

Contributed by:	Bette Anton, M.L.S., Librarian
Library:	Optometry Library
Date Founded:	1953
Professional librarians, FTE:	1.0 FTE (.5 FTE funded by another program; librarian serves both programs)
Computer specialists and support staff, FTE:	0FTE in residence. Library is served by computer specialists/support staff funded by & in support of entire UCB Library system and the School of Optometry
Hourly or student help, FTE:	1.0
Estimated number of volumes in collection	11,000
Website Address:	www.lib.berkeley.edu/OPTO/

The University of California at Berkeley Optometry Library is one of eight science branches on the UCB campus. It primarily supports the faculty, students, staff, research laboratories, and clinics of the University of California School of Optometry. In January 1997, the Optometry Library merged with and absorbed the services and collection of the UC Berkeley-UC San Francisco Joint Medical Program (JMP)*.

Almost the entire Optometry Library collection of approximately 11,000 volumes is devoted to optometry, ophthalmology, and vision science; within these areas are included all subfields. Slides, videos, and audiocassettes are also collected. As a result of the January merger, the Optometry Library now houses several hundred additional volumes in broader areas of health and medicine.

UC Berkeley is served by two online catalogs: GLADIS, containing only UCB library holdings, and MELVYL, which include library holdings of the nine UC campuses. Through MELVYL, MEDLINE and many other databases are accessible; remote access to the online catalogs is available. Both online catalogs are available in a World Wide Web interface. In the Optometry Library, networked PCs provide access to GLADIS and MELVYL, to the Library interdisciplinary CD-ROM network, the World Wide Web and the Internet, and to downloading capabilities. A stand-alone CD-ROM workstation supports a number of CD-ROM titles specific to optometry and vision science.

The UCB Optometry Library is the only publicly supported vision science library in California, indeed in the entire western region. As such, it provides information resources for the greater vision science community. The library offers access and borrowing privileges to members of the UCB School of Optometry Alumni Association. Because it is a tax-supported institution, the UCB Optometry Library is open to the public.

The UCB Optometry Library, in conjunction with the School of Optometry and the JMP, is working to integrate library and other electronic information resources into the clinical experience, through the development of "point-of-care" workstations. We are also working on a number of digital library projects. We anticipate that these projects, when completed, will benefit the entire optometric community.

We envision many advantages flowing from the partnership created by the recent Optometry/Joint Medical Program merger. By bringing together under the same roof the information science aspect of the two clinical programs on the UCB campus, we expect benefits such as joint classes, clinical interactions and research projects, joint medical informatics workshops, greater integration in the training of health care providers, and the expansion of digital library projects.

The Optometry Library offers both required and optional workshops throughout the year on a variety of information management topics. Particular emphasis is placed on teaching students how to perform searches using electronic databases. During 1995-96 academic year, the Library was recipient of an ASCO/CIBA Vision Total Quality Education (TQE) grant for developing a curriculum model of training students, and ultimately clinicians, in the use of electronic resources.

The UCB School of Optometry and the Optometry Library recently submitted a proposal for a capital improvement project that would support present and future library ventures in an electronic information environment. The proposal calls for the building of a health informatics laboratory containing individual computer workstations. Our goal is for a library which integrates rapidly changing information technology and is central in the provision and management of information - in whatever format - which supports the curricular, clinical, and research requirements of optometry and vision science.

*The JMP trains medical students on the Berkeley campus, after which they complete further requirements for an M.D. degree on the UC San Francisco campus. ■

University of Houston College of Optometry

Contributed by:	Suzanne Ferimer, M.S.L.S., M.Ed., Librarian
Library:	Weston A. Pettey Vision Science Library
Date Founded:	1977 (Prior to that date UHCO was served by a reading room)
Professional librarians, FTE:	1.0
Computer specialists and support staff, FTE:	1.5
Hourly or student help, FTE:	1.25
Estimated number of volumes in collection	8,000
Website Address:	info.lib.uh.edu/local/optometr.htm

The past two years have proved to be very eventful for the UHCO Library. It underwent a complete renovation with a $250,000 grant from the University Libraries. The renovation provided ten small study rooms, two audiovisual rooms, a large computer lab, a comfortable current journals reading room, and expanded the shelving capacity by 20%. In addition, the entire library was wired so students could access the University computer network from any area of the library. New furniture, carpet, audiovisual equipment and computers completed the makeover. During this time the library was named for one of Texas' most distinguished optometrists, Dr. Weston A. Pettey, who has written several books including ***Texas Optometry,*** a history of the profession in Texas, including the founding and history of the University of Houston College of Optometry.

The Weston A. Pettey Library's two primary goals are: to assist students in acquiring information and information seeking skills, and to fulfill the faculty's information needs quickly, thoroughly, and accurately. The Pettey Library is open seven days a week to meet these goals.

The Pettey Library's collection reflects the strong research and clinical interest of the faculty. The University of Houston Libraries' 1.8 million volumes and 14,000 periodical titles are an excellent backup to the holdings in the Pettey Library. Holdings in education, psychology, business, a strong core health sciences collection, plus the presence of a Pharmacy Library make it easy for faculty and students to access information on campus.

Faculty and graduate students also have access to materials through the Houston Area Research Libraries Consortium (HARLiC): Texas A&M, University of Texas Medical Branch at Galveston, Rice University, and Houston Public Library. Additionally, our faculty, graduate and professional students have full privileges at the Houston Academy of Medicine/ Texas Medical Center Library, which is recognized as one of the finest health science libraries in the United States.

The library provides classes each year on bibliographic topics, database searching, formatting of research papers, the Internet, and other topics requested by the faculty.

Services and facilities available to faculty, students, alumni, and optometric professionals throughout the state of Texas are:

Borish Reading Room: Named in honor of Irvin M. Borish; this room houses current journals as well as his many awards and honorary degrees.

Computer Lab: 27 Macintoshes, nine PC's, and three laser printers are all networked. They utilize Microsoft Office and Windows 95 software, and have Internet access and E-mail capabilities. (Students and faculty are provided E-Mail accounts by the University.) These computers can access course specific programs as part of class assignments. Additionally, an Intranet has been established which provides course information, syllabi, etc., for faculty and students within the College.

Current Awareness: Our faculty, adjunct faculty at remote sites, graduate students, and residents are provided photocopies of articles they select from tables of contents of journals received in the Pettey Library.

Database searching: MEDLINE, CINAHL, ABI Inform, AGRICOLA, Biotechnical Abstracts, Books in Print, Chemical Abstracts Index, Compendex, ERIC, Science Citation Indiex, and many other databases are available to all. These can be accessed in the Library, from elsewhere in the College, or from off-campus sites. Other CD-ROM products are available only in the Library.

Faculty Publications: The Library maintains an up-to-date collection of UHCO faculty publications.

Grand Rounds: The Library catalogues and binds the Grand Rounds papers presented each semester by fourth year students at the College.

Inter-Library Loan: This service is provided free by the University Libraries.

The College is a member of the National Network of Libraries of Medicine and is a DOCLINE provider. Materials on campus are provided to the faculty by courier. The College covers the cost of photocopies from UH campus libraries for faculty and graduate students. ■

University of Missouri - St. Louis, School of Optometry

Contributed by:	Cheryle J. Cann, M.S.L.I.S., A.H.I.P., Librarian
Library:	Health Sciences Library
Date Founded:	1980/1981
Professional Librarians:	2
Clerical staff, FTE:	1
Hourly Student Help, FTE:	2.5
Website Address:	www.umsl.edu/services/library/library.html

The Health Sciences Library is one of three units which comprise the University of Missouri-St. Louis Libraries. The Thomas Jefferson Library is the principal research library and houses collections in the humanities, social sciences, sciences and business administration. The Ward Barnes Education Library houses specialized materials supporting programs in the School of Education. The three campus libraries work closely together to provide well-rounded collections and services for the University's students, faculty, and staff.

The HSL occupies a space of approximately 4700 square feet and provides seating for 72 patrons. Seating is available in individual study carrels, audiovisual study carrels, and at group study tables. The library also has a small lounge seating area.

The HSL staff consists of two FTE Librarians, and one FTE Library Assistant I. The library also employs student assistants each semester to help provide clerical, directional, and circulation assistance. The Health Sciences Library is open 76 hours per week during the fall and winter semesters; 54 hours per week during the Intercession and Summer Session; and 45 hours per week when classes are not in session.

Optometry faculty take an active role in building the HSL's collections. The School's Library Committee also advises the librarian on policy matters and recommends new items for purchase.

At the end of the 1995/1996 fiscal year, the Health Sciences Library was receiving 239 journal titles on behalf of the Schools of Optometry and Nursing. Of this total, 100 are directly relevant to the Optometry curricula. The HSL's collections of journal volumes, monographs, microforms, audiovisuals, and computer programs now number roughly 12,000 items. Approximately 45% of these are relevant to the School of Optometry's interests. These collections are supported and enhanced by the other UM-St. Louis Libraries. The Thomas Jefferson Library collects materials to support Ph.D. programs in Clinical Psychology, Biology, and Physics. These collections cover topics which are closely related to Optometry, including perception, neurology, human biology, and optics. The main library also collects general science and medicine titles which supplement the Health Sciences Library's more narrowly-focused collections. In addition, the Ward E. Barnes Education Library covers other areas relevant to the Optometry curricula, such as reading disabilities and learning disorders.

The Health Sciences Library, as a member of the larger group of University Libraries, has recently installed a state-of-the-art integrated library system allowing patrons access to the libraries' catalog and databases of citations to journal and newspaper articles, dissertations, and other resources from public workstations within each library. Access is also available from student computing labs, faculty and staff offices, and by remote Telnet connection. A variety of additional electronic and printed information resources are available within the libraries for patrons' use.

When patrons require materials which the libraries do not own, the Libraries offer services and programs which allow them to utilize the rich library resources in St. Louis. The cooperative relationships among the area's major research libraries are being enhanced by regular discussion among their staff and directors. Local libraries' book holdings may be identified through computer searches. Faculty members may borrow these titles using Higher Education Cooperative cards which provide them with general circulation privileges at most major academic institutions in St. Louis. Students may borrow the same items though the InfoPass program. Most area journal collections must be used on-site.

Materials not owned by the Libraries may be obtained through the Thomas Jefferson Library's Interlibrary Loan office. The Interlibrary Loan division may draw upon the resources of local, national, and international collections, as well as several document delivery services. ■

IN REVIEW

Sports Vision, D.F.C. Loran and C.J. MacEwen, Oxford:Butterworth-Heinemann, Ltd, 1995, 240 pages, including index, hardbound, $75.00.

Finally, everything you wanted to know about Sports Vision but were too embarrassed to ask! This text, which explores the relationship of vision to sports, is long overdue. Eyecare practitioners have attempted to serve the visual needs of the athlete/patient without the availability of a definitive textbook. Thanks to Loran and MacEwen and a prestigious group of contributing experts, the void has been satisfied.

Sports Vision addresses the basic categories of evaluation, correction, remediation and enhancement for the recreation-oriented patient in a comprehensive yet succinct manner. Drs. Easterbrook and Jones discuss sports eye injury and protection flawlessly. They present the latest update on product development and its value in protecting the eye and adnexa. Drs. Sherman and Gardner dissect the visual needs of athletes in specific sports in an organized and understandable way that is of practical use to the experienced practitioner as well as the novice. Useful advice is provided by Dr. Berman on the mechanics of "getting your feet wet" in this exciting specialty which focuses on the visual-motor needs of the fitness minded patient of the nineties. Drs. Coffey and Reichow do an admirable job of detailing the enhancement procedures that are currently being implemented in *Sports Vision*.

Perhaps the most valuable aspect of this text is its effort to address the more obscure topics that are often neglected in the literature, i.e., sports for the visually impaired, lighting and its impact on athletic performance and the legal responsibilities and liabilities associated with Sports Vision care.

My only criticism of this outstanding work is its failure to emphasize the inherent risks of radial keratometry for the athlete who competes in contact sports (i.e., global rupture) and the frequent references to sports that are perhaps unfamiliar to the U.S. practitioner.

I thoroughly enjoyed this text and consider it to be required reading for the established eyecare provider as well as the optometric/ophthalmology student. *Sports Vision* will hopefully serve as a basis and impetus for the development of more required courses in this discipline in our professional schools.

Reviewer: Dr. Donald S. Teig
Sports Performance Centers of America

Cornea and Conjunctiva: Clinical Procedures, C.J. Cakanac, P.C. Ajamian, Boston:Butterworth-Heinemann, 1996, 118 pages, 15 color plates, 61 black and white figures, $35.00.

Cornea and Conjunctiva: Clinical Procedures is a small, spiral-bound book that is a compilation of various anterior segment techniques. The text is a good reference for educators who are teaching the techniques and for the student-intern or practitioner learning to do the technique; it may also be used as a reference for those already performing the procedures.

A consistent outline is followed in each chapter which includes a procedural overview, evaluation of the condition being treated, materials required, how to perform the procedure, follow- up care, and third party billing. The procedures discussed in the text cover the range of anterior segment techniques utilized in a therapeutic practice. Procedures include foreign body removal, epithelial debridement, anterior stromal puncture, suture cutting and removal, conjunctival cyst and concretion removal, stains and cultures and corneal sensitivity testing.

The consistency of presentation in each chapter assists in the ease of using the text. It provides the intern and clinician with a quick and uncomplicated reference as to when, why and how to perform the procedures. These practitioners will find this book both concise and easy to read. The section of third party billing is helpful and often an area many practitioners have questions about.

The figures in each chapter nicely complement the text, thus providing good visualization of the technique. The majority of these figures, however, are reprinted with permission from various other sources. Specifically, of the 61 black and white figures, 26 are reprinted with permission from other sources, with many from the same sources. One may question the need to refer to this text, when other sources were so highly reprinted and referenced here. However, this text combines many aspects of the procedures in an easy, how-to-do manner.

This text would assist the intern learning the procedures and also provide the practicing clinician with a quick reference as to when and how to perform the technique.

Reviewer: Dr. Diane T. Adamczyk
SUNY College of Optometry

Clinical Procedures for Ocular Examination, Second Edition. N.B. Carlson et.al., Stanford, CT: Appleton & Lange, 1996, 493 pp., including index, $39.95.

Carlson et. al. have updated their 1990 Clinical Procedures for Ocular Examination. This book contains a wide variety of procedures ranging from entrance tests and refractive techniques to systemic health and cranial nerve screening. It contains numerous flowcharts and tables that summarize steps and allow for easy procedure selection based on particular patient presentations. The descriptive text regarding each procedure is short and to the point.

I think this book is an effective reference for practitioners, optometric faculty members, and third and

(Continued from page 29)

fourth year optometry students. It is a quick and easy reminder when our memory fails. However, use with caution; some procedures are described in a more complex way than needed. For example, calculation with Prentice's rule is recommended before direct measurement of prism with the lensometer reticle. And, performing a duochrome sphere check to double check every other sphere check is recommended when performing a subjective refraction.

I would not recommend this book for beginning students or for others who are not familiar with what each procedure is measuring and the importance of the measurement. The brief descriptions will more than likely raise numerous questions. Knowing why a certain target is used for a procedure, and why it is conducted a particular way, is imperative for the student's understanding and retention. A few theoretical differences were also bothersome. For example, conducting the alternating portion of the cover test was recommended before conducting the unilateral portion. The reverse is more correct, so as not to mistake an intermittent trope for a constant trope.

In summary, if used as a handy reference guide, this book certainly does serve its purpose. However, I would be wary to recommend it to beginning optometry students even for this purpose, for the reasons explained, as well as numerous other theoretical and procedural discrepancies.

Reviewer: Dr. Jacqueline Sansone
Southern College of Optometry

Clinical Uses of Prism: A Spectrum of Applications, ed. Susan A. Cotter, Mosby, St. Louis, 1995, $34.95.

Dr. Susan Cotter has selected world authorities from both the clinical and academic community in optometry to provide both the student and clinician a comprehensive guide on the use of prisms. In chapter one, William Brown provides a comprehensive review of geometric optics of prisms. The only problem with this chapter is that he does not give the clinician useful information on how to apply the information presented in a problem solving mode. Also, problems of internal reflection and chromatic aberration are only touched upon. It would have been useful for Dr. Brown to have provided more detail about these aberrations so that the clinician could determine when or if these aberrations would interfere with a proposed prismatic prescription and how to counsel the patient.

Chapter four provides a wonderful review of motoric prism adaptation by the two leading authorities in the field, a must for all clinicians. It is unfortunate that the sensory aspects of prism adaptation were ignored in this comprehensive book. One is led to believe that all adaptation is motor.

Dr. James Saladin provides an excellent review of the physiology, methodology and previous studies on non-strabismic prescription of horizontal prism. He differentiates between exos and osos using discriminative analysis of various testing measurements to predict asthenopia and treatment. Wick in his chapter on vertical deviations provides a biased approach of his treatment protocol. Unfortunately, he does not provide a differential diagnostic regiment and its relationship to treatment for the various types of vertical deviations, i.e., old decompensated vertical deviations, newly acquired fourth nerve deviations, concomitant large and small deviations. Dr. Wick is quick to criticize theories that do not match his but doesn't provide the scientific evidence to support his methodologies.

The book also includes an excellent insight into the use of prisms with strabismus as well as both conventional and non-conventional uses of prisms within vision therapy and the use of prisms in low vision.

Reviewer: Dr. Jeffrey Cooper
State College of Optometry
State University of New York

The Physics of Star Trek.

Lawrence M. Krauss, New York: Basic Books, 1995, 188 pages, $20.

Optometry students today have heavy academic loads and there is a stronger biomedical emphasis in our pre-optometry requirements and our curricula than ever before. As a result, optics instructors sometimes have to be inventive to maintain the students' attention. Perhaps this book would offer some inspiration.

The author discusses which technologies and other aspects of the popular television program Star Trek may be possible, which may not be possible, and why. Along the way, the author imparts knowledge of contemporary physics.

Much of the book involves such Star Trek staples as transporters, time travel, wormholes, travel at faster than the speed of light, multiple dimensions, matter-antimatter engines, holodecks, etc. Optics principles discussed include the speed of light and holography. The author, Lawrence M. Krauss, is Ambrose Swasey Professor of Physics, professor of astronomy and chair of the Department of Physics at Case Western Reserve University. A forward was written by Stephen Hawking. The presentation is non-mathematical and designed for a popular science audience. As the author stated in the preface, "the number of people in the United States who would not recognize the phrase 'Beam me up, Scotty' is roughly comparable to the number of people who have never heard of ketchup." The medium of Star Trek made for interesting reading on physics.

Reviewer: Dr. David Goss
Indiana University
School of Optometry

Eye Movement Basics for the Clinician. K. Ciuffreda and B. Tannen, St. Louis, MO: Mosby, 1995, $41.95.

This book combines the expertise of two outstanding optometric contributors into ten fact- filled chapters. The subject of eye movements is one of the more difficult areas to teach. The visual scientist and clinician should feel equally comfortable

with this work. The book addresses aspects of neuroanatomy and neurophysiology in a manner which should be easy for the optometric student to grasp and in addition, the practical clinical aspects are clearly explained. Until this book was published, no single reference was available which addressed both aspects of eye movement for the optometric student. This book accomplishes the marriage of the art and the science of eye movements in an exemplary manner.

The first six chapters deal with the science of the ocular motor system including fixations, saccades, pursuits, vergence and both vestibular and optokinetic systagmus. The following four chapters focus on how a clinician can evaluate the complex visual process of eye movements, both with objective instrumentation as well as standardized behavioral tests. The last chapter is devoted to case histories where a wide variety of conditions from congenital nystagmus, dyslexia, amblyopia and various neurological conditions are discussed.

This book should be seriously considered as a text by those teaching the optometric student. It covers the basics of eye movements in a clear, concise way which makes this book way to read and to use as a reference. I recommend this book highly.

Reviewer: Dr. Willis C. Maples
Northeastern State University

Clinical Optics, 2nd edition. Troy E. Fannin and Theodore Grosvenor, Boston: Butterworth-Heinemann, 1996, 420 pages, including an index, illustrated, hardbound, $75.00.

As the expanding scope of optometry increasingly concentrates on therapeutics, concern about the profession losing its roots in optics has grown. Many optometrists realize that the success of our profession was built on our skills in optics, reflected in adroit refractions and accurate prescriptions correctly translated into eyewear and contact lenses. Today, the optometrist must make decisions about a challenging profusion of lens materials and lens designs.

Clinical Optics, first published about ten years ago, is the work of distinguished optometric educators. In this 2nd edition, it is likely to become the bible of its field. Its 13 chapters cover ophthalmic lens materials, characteristics of ophthalmic lenses and prisms, correction of ametropia, ophthalmic lens design and aberrations, absorptive lenses and coatings, multifocals, dispensing, anisometropia and aniseikonia, high power lenses, low vision optics, and contact lens optics.

The authors have expanded their treatment of ophthalmic lens materials to include plastics, high-index glasses and protective lenses. Aspheric lens designs have been added to the chapter on lens design. Extensive revisions have been made to absorptive lenses and the harmful effects of ultraviolet

and short wavelength light. Recent developments in photochromic lens materials are succinctly treated. The authors are abreast of current topics, such as occupational lenses for viewing video display terminals and progressive addition lenses.

Nor only is Clinical Optics comprehensive, but it frequently treats topics in depth. For example, obliquely crossed cylinders are combined algebraically, using vectors, and polar coordinates. While providing the essential theoretical background, the authors supply a wealth of practical information. The book is highly readable, amply illustrated and packed with useful tables.

Clinical Optics is an excellent textbook. But more than that, it is at the cutting edge of ophthalmic optics and should be a desk reference for all practitioners.

Reviewer: Dr. Milton Katz
State College of Optometry
State University of New York

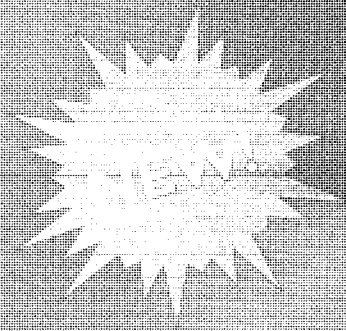
Ocular Manifestations of Neurological Disease. Bernard H. Blaustein, ed., St. Louis: Mosby, 1996, 290 pages, index, 87 figures (line drawings and black and white photographs), 44 tables, 11 colored photographic plates, 102 clinical pearls, $34.95.

This is the first book written by optometrists, for optometrists and devoted to the subject of neuropathology as it affects the eyes and vision. As a first, *Ocular Manifestations* is a landmark text and should attract wide readership within the profession. Happily, it is both highly readable and well worth the read. It contains nine chapters covering the vast majority of neurological diseases and conditions that are likely to present to the practicing optometrist. Each chapter is written by a recognized authority in the field. The majority of optometrists will find the names of the contributors familiar because of their prior contribution to the literature. In addition, though written by many authors, this text reads with a consistent style and a uniform level of depth and breadth on each topic.

Ocular Manifestations is organized along the liens of patient presentations rather than by diagnosis. This enhances its usefulness to the practitioner, who is more likely to see a patient with a complaint than someone with a diagnosis already in hand. Each chapter is enhanced with clear line drawings of the relevant neuroanatomy, clear tables summarizing clinical findings and differential diagnoses, and numerous clinical pearls. Most of the pearls are highly succinct and useful summaries of key clinical pearls; I recommend that in the next edition they not be identified as such. Ocular Manifestations also describes selected problem specific testing procedures that will help the reader properly work up neuro patients.

Ocular Manifestations of Neurological Disease is concise without sacrificing depth or breadth. It has a uniformly accessible style and represents an important contribution to the library of every primary care optometrist. The authors and the editor are to be congratulated.

Reviewer: Dr. Daniel Kurtz
The New England College of Optometry ■



WHAT'S GOTTEN INTO VARILUX COMFORT?

NUPOLAR™

INTRODUCING VARILUX COMFORT POLARIZED LENSES.

Varilux® Comfort Polarized lenses are the ultimate solution for all of your presbyopic patients who need a sunlens. They're a breakthrough combination of Varilux Comfort's triple-patented* technology and NuPolar's advanced polarization, which is embedded *right inside the lenses* so they'll never delaminate.

Varilux Comfort Polarized lenses provide 99% UV blocking, good for high-glare situations such as driving and boating. Their enhanced visual comfort makes them the perfect everyday sunglass lenses. Varilux Comfort Polarized lenses also have NT•1,™ the most scratch-resistant coating available today.

Best of all, while your patients enjoy quality lenses, you can enjoy greater profits.

To learn more about Varilux Comfort Polarized, visit us on the World Wide Web at **www.varilux.com** or call **1-800-BEST PAL** to have a Varilux Sales Consultant contact you.

*Patent #s: 5272496, 5270745, and 5488442.
†1996 OLA Award of Excellence — Best in Lens Technology

RECOMMEND BETTER VISION™ RECOMMEND VARILUX LENSES™

VARILUX®
comfort