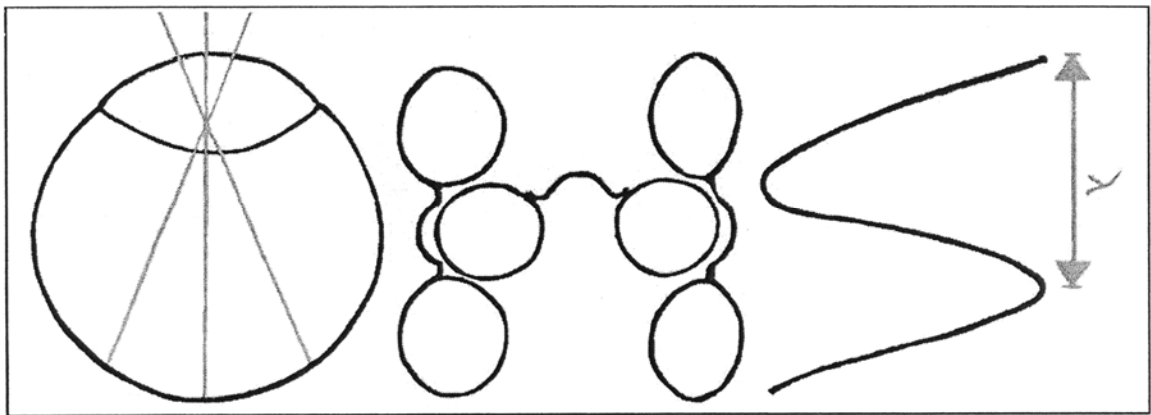


# HINDSIGHT

## Journal of Optometry History

July, 2012  
Volume 43, Number 3



Official Publication of the Optometric Historical Society

Hindsight: Journal of Optometry History publishes material on the history of optometry and related topics. As the official publication of the Optometric Historical Society, Hindsight: Journal of Optometry History supports the purposes and functions of the Optometric Historical Society.

The purposes of the Optometric Historical Society, according to its by-laws, are:

- to encourage the collection and preservation of materials relating to the history of optometry,
- to assist in securing and documenting the recollections of those who participated in the development of optometry,
- to encourage and assist in the care of archives of optometric interest,
- to identify and mark sites, landmarks, monuments, and structures of significance in optometric development, and
- to shed honor and recognition on persons, groups, and agencies making notable contributions toward the goals of the society.

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On the cover: The drawing represents OHS for Optometric Historical Society: the O an elementary schematic of an eye, the H three intersecting pairs of spectacles, and the S a representation of a light wave with the Greek letter lambda indicating one wavelength. The drawing artist was Diane Goss.

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# HINDSIGHT: Journal of Optometry History

July, 2012

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## Instructions to Authors

Hindsight: Journal of Optometry History is the official publication of the Optometric Historical Society (OHS), and, as such, supports and complements the purposes and functions of OHS. The journal publishes historical research, articles, reports, book reviews, letters to the editor, and article reviews. The topics of material published in the journal include: history of optometry; history of eye and vision care; history of spectacles, contact lenses, and other corrective devices; history of vision therapy, low vision care, and other vision care modalities; history of vision science; biographical sketches of persons who have worked in or influenced optometry and/or vision science; recollections or oral histories of optometrists and persons who have worked in optometry and optometry-related fields; and related topics.

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Authors who wish to use direct quotations of substantial length, tables, figures, or illustrations from copyrighted material must obtain written permission from the publisher or copyright owner. Short quotations may be acknowledged by quotation marks and a reference citation.

Submissions should include a title, the names, degrees, postal addresses, and email addresses of the authors. Abstracts are not recommended for short articles. Abstracts and key words are recommended but not necessary for longer articles.

Tables and figures should be numbered sequentially in the order that the mention of them appears in the text, e.g., Table 1, Table 2, Figure 1, Figure 2. Each table and figure should have mention or discussion of it in the text of the article. Each table and figure should be accompanied by an explanatory figure legend or table legend. Any article containing tables should be submitted as a Word document attachment to an email message with the tables produced through the table creating function of Word (as opposed to an Excel or comparable spreadsheet).

Extensive use of uncommon abbreviations, symbols, and acronyms is discouraged. Common abbreviations, such as D for diopters or cm for centimeters, may be used. Common symbols, such as  $\Delta$  for prism diopters, may be used when the context for their use is clear. The first use of acronyms should be accompanied by the name or phrase spelled out followed by the acronym in parentheses, as for example: The Optometric Historical Society (OHS) has produced a quarterly publication since 1970.

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Journal articles:

Calvo M, Enoch JM. Early use of corrective lenses in Spanish colonies of the Americas including parts of the future United States: reference to Viceroy Luis de Velasco (the son). *Optom Vis Sci* 2003;80:681-689.

Section in a single author book:

Hofstetter HW. *Optometry: Professional, Economic, and Legal Aspects*. St. Louis: Mosby, 1948:17-35.

Chapter in a multi-author volume:

Penisten DK. Eyes and vision in North American Indian cultures: An historical perspective on traditional medicine and mythology. In: Goss DA, Edmondson LL, eds. *Eye and Vision Conditions in the American Indian*. Yukon, OK; Pueblo Publishing, 1990:186-190.

Citations to articles in *Hindsight: Journal of Optometry History* should be given as follows:

Bennett I. The story behind Optometric Management magazine. *Hindsight: J Optom Hist* 2007;38:17-22.

If footnotes or notes on additional (minor) details are used, they should be marked in the text with superscript lower case letters starting with a and continuing in alphabetical order. The notes themselves should be the last section of the paper. The heading for the section should be Notes.

# **American Optometric Association Complaint to the U.S. Department of Justice Regarding Activities of Organized Medicine in the Field of Vision Care which Hinder and Restrain the Profession of Optometry**

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A fascinating series of historical events that began over fifty (50) years ago has been treated as highly confidential. What is amazing in that much of the activity remained “under wraps” for so long and that this remarkable story has never been fully recounted.

Over the years, much has been written about the 1954 American Optometric Association (AOA) resolution, the American Medical Association (AMA) misreading and over-reaction, the subsequent AOA 1955 clarification, and the 1964 filing of a lawsuit by a Chicago optometrist against the AMA.

More recently, Irving Bennett, O.D., authored several excellent articles: “The 1954 American Optometric Association Seattle Resolution and Medical Reaction to it”<sup>1</sup> and “The Lawsuit of Optometrist Cyrus Bass versus the AMA”.<sup>2</sup>

However, there is very little in the literature about the 63 page memorandum filed in February 1966, setting forth the AOA’s complaint against organized medicine. We have found a personal recollection many years afterward by Mr. J. Harold Bailey, CAE,<sup>3</sup> AOA’s first Executive Director (1952-1977), and a recital of the events in the consummate optometricolegal history of profession by John G. Classé, O.D., J.D.<sup>4</sup>

It is to record for posterity this significant endeavor that this article has been written by researching the original source documents. (Author Wolfberg was a Trustee/Officer of the American Optometric Association 1962-1971; Author Eichhorst was the AOA staff legal counsel, 1965-2002.)

As the AOA special report to the membership on “AOA-AMA Relationships” of February 27, 1967, began by asserting that:

“The AOA has always, and particularly since 1955, devoted a great deal of time, money, and manpower in its continuing efforts to improve the relationship between the optometric and medical professions.”<sup>5</sup>

.....  
“The AOA has been extremely active in its efforts to improve the position of optometry vis-à-vis organized medicine and to eliminate what it considers unreasonable restraints on the profession of optometry to the detriment of the public. These activities, because of their delicate nature, necessarily had to be conducted without fanfare or publicity.”<sup>6</sup>

The report noted that the lawsuit filed by Dr. Cyrus Bass against the American Medical Association on July 24, 1964<sup>7</sup> was done without notice to or consultation with the AOA.<sup>8</sup>



The four legal minds involved in the story (left to right): Harold Kohn (General Counsel for AOA, 1934-1968); William P. MacCracken (Washington Counsel, 1942-1968); Ellis Lyons (General Counsel for AOA, 1968-1994); Thomas E. Eichhorst (Staff Counsel, 1965-2002, and currently staff for the Judicial Council and the Ethics and Values Committee, and Parliamentarian for the House of Delegates since 2009).

More than five years before the filing of that lawsuit, AOA had started its consultations with expert legal counsel seeking advice on how to address the issues raised by AMA Resolutions 77, 78 and 79, and other discriminatory activities.

In late 1958 and early 1959, the AOA had consulted Mr. Philip B. Perlman, the former Solicitor General of the United States (the Federal Government’s lawyer in the Supreme Court of the United States), and his law partner Mr. Ellis Lyons.<sup>9</sup>

Mr. Perlman submitted a comprehensive report in the spring of 1959. In his report, Mr. Perlman counseled against a private antitrust lawsuit. A significant factor in this recommendation was the magnitude of the financial undertaking involved in such a private antitrust lawsuit.<sup>10</sup>

Mr. Perlman recommended instead the possibility of the filing of a complaint with the U.S. Department of Justice. He described the nature of the materials that needed to be obtained to support a proper submission. Even this would involve the expenditure of substantial sums of money.

Mr. Perlman's recommendations were approved by the AOA Board of Trustees for action by the AOA House of Delegates.<sup>11</sup>

The 1959 AOA House of Delegates adopted a resolution authorizing the president of AOA to appoint a special commission to investigate thoroughly the existing relationship between the eye care professions and to make recommendations to the Board of Trustees.

The Commission and later, the AOA Department of Legal Affairs, gathered information and materials showing the extent of the AMA activities against optometry.<sup>12</sup>

On the basis of the preliminary information received, the AOA Board of Trustees proceeded with the research project, and in March 1964, retained Mr. Lyons as Special Counsel to study the feasibility of submitting a complaint to the U.S. Department of Justice. (Mr. Perlman had passed away.)

Mr. Lyons developed a questionnaire to elicit information which would support such a complaint. This questionnaire was mailed on August 5, 1964, to every AOA member optometrist, the schools and colleges of optometry and other optometric organizations.<sup>13</sup>

Over the next 18 months about 3,000 responses of over 100,000 pages were given careful study.<sup>14</sup> Founded on this documentation, on February 25, 1966, Mr. Lyons filed a 63-page Memorandum with the U.S. Department of Justice Antitrust Division. It set forth AOA's complaint against the "Activities of organized medicine in the field of vision care which hinder and restrain the profession of optometry."

The Memorandum includes a lengthy listing of medical transgressions which would meet the requirements for legal relief at the national level.<sup>15</sup> Excerpts [footnotes excluded] state:

"Optometrists from all sections of the country have informed us that since the promulgation of the AMA resolutions, they rarely get their patients back from physicians to whom they have referred the patients for treatment of pathology discovered in the course of an optometric examination. When a patient is referred to an ophthalmologist for medical treatment, the optometrist usually does not see that patient again. Strong anti-optometric lectures are given to the patients by the ophthalmologists about the optometrist 'not being a doctor' and about the dangers of trusting one's precious vision to an optometrist, who is not qualified to help, and we have received many reports of physicians sending

patients to opticians for contact lenses rather than sending them to the trained optometrist. The conspiracy to deprive optometrists of their patients is nationwide, and optometrists throughout the country have suffered severe economic losses.

“The foregoing is a general picture of the activities of organized medicine which restrict, restrain, and, indeed, tend to eliminate optometry as an independent profession competing with medicine in the field of vision care . . . .

“ . . . . The legislatures of all of the states have authorized and licensed the practice of optometry as an independent profession in the health care field, and if the pursuit of that profession has affected medicine economically, it is because the laws of the land have so provided . . . .

“Jurisdiction under the antitrust laws appears quite clear. The Department of Justice has already taken the position that the practice of a profession like medicine is a trade and that a restraint imposed upon the practice of medicine may constitute a restraint of trade in violation of the antitrust laws . . . .

“The interstate aspects of the conspiracy would seem clearly sufficient to support jurisdiction under the antitrust laws. The activities here involved are not limited to the confines of a single state . . . they are nationwide in scope. The activities of the American Medical Association and the National Medical Foundation for Eye Care are carried on all over the country, and the impact of these activities is felt by optometrists all over the country. The fact that the individual optometrist offers his services to a patient in an office building in a particular community is beside the point and does not deprive the overall conspiracy of its nationwide interstate quality.

“The operations of optometric schools and colleges have been subjected to restraints and boycotts, and these schools draw their students from all over the country. Optometrists, as part of their professional service, provide their patients with ophthalmic devices – eyeglasses, frames, lenses – all of which are shipped across state lines. And, as indicated from some of the situations above referred to, optometrists have been restrained in attempting to move a practice from one state to another, in offering radio broadcasts, in publishing articles in national magazines and publications, etc. . . . .”

Following this recital of aggrieved activities, the Memorandum concludes with a fervent appeal for legal redress:<sup>16</sup>

“The foregoing material, it is submitted, discloses a situation which calls for further investigation by the Department of Justice, and it is respectfully requested that the Department undertake an investigation of the matters referred to herein so that appropriate action may be undertaken to put an end to such activities as may be found to be unlawful.”

Describing the February 28, 1966 discussions he had with officials at the Department of Justice, explaining the submission, Mr. Lyons reported to the AOA Board of Trustees in a Memorandum, dated March 2, 1966:<sup>17</sup>

“I was asked whether we were involved anywhere in any litigation raising these antitrust issues and I was relieved to be able to answer in the negative, for I am convinced that, if we were, the Department, as a matter of policy, would keep its hands off while such litigation was pending without even looking into the matter at all. I am now satisfied more than ever that our decision was sound not to have anything to do with the Bass case.

“I felt called upon to refer to the Bass case, and I reported on its status as best I knew it; I pointed out that we were not involved and that I doubted whether the issues we were presenting would ever really be reached in Bass. Although I am not absolutely sure, I feel fairly certain that I convinced them that the pendency of the Bass case should not prevent their consideration of our matter.”

The astute attorney, Mr. Lyons was correct, as he received a letter dated March 9, 1966 from Lewis Bernstein, Chief of the Special Litigation Section of the Department of Justice’s Antitrust Division, stating that: “The memorandum and exhibits referred to in the letter which you delivered and explained to Mr. Edwin M. Zimmerman, First Assistant, and myself are being studied . . . . Thank you for bringing this matter to our attention.”<sup>18</sup>

While the pendency of the Bass case did not preclude the initiation of the Department of Justice investigation, there were real concerns that a middling settlement in that case could unduly limit the extent of any federal relief that might be offered, or possibly even preclude any such action. (This was particularly so, as the Bass case was presided over by a federal district judge in Chicago who prided himself by using his full name – Abraham Lincoln Marovitz. Styling himself as a skilled compromiser, the judge had a great penchant for forcing settlements to clear his docket.)

The AOA Report was able to declare that fortunately, however:

“now for the first time since the adoption of Resolutions Nos. 77, 78 and 79 in 1955, there have been developments which tend to indicate some change of policy on the part of the AMA in its relationship to optometry. At its June, 1966, meeting, the AMA House of Delegates adopted Resolution No. 107, which modified its prior position set forth in Resolution 77 making it ‘unethical for any doctor of medicine to teach in any school or college of Optometry.’ Resolution No. 107 now provides that ‘Doctors of medicine may as teachers participate in the education of optometrists within the legitimate scope of optometric practice.’”<sup>19</sup>

It is indeed beneficial to the public good, and salutary to the profession, that the “legitimate scope of the optometric practice” is solely determined by the scope of practice legislation enacted by the state legislatures. Who could have foretold in 1966, the monumental expansion of the rights, privileges and obligations of doctors of optometry as set forth in the state optometric laws enhanced over the years. The “aftertold” is recorded in Wolfberg, M. “A profession’s commitment to increased public service: optometry’s remarkable story,” *Journal of the American Optometric Association*, March 1999, 70:145-170, and in Cooper, SL. “1971-2011: Forty Year History of Scope Expansion into Medical Eye Care.” *Optometry*, 2012; 83:64-73. (Unfortunately Ms. Cooper’s excellent article is only available in an online version, the first month after the last print issue of *Optometry*.)

As Resolution 107 spoke in positive terms, the AOA was asked to provide the Department of Justice with its views on whether this might not take care of optometry’s complaints against organized medicine and, if not to set forth the AOA’s views on wherein it failed to take care of optometry’s legitimate complaints. On October 28, 1966, in response to this request, Mr. Lyons sent an eleven page letter to the Department setting forth the AOA views on the deficiencies of Resolution No. 107 and pointing out that, even if the Resolution were broadly interpreted, it fell “far short of eliminating the other restraints, boycotts and restrictions complained about” in the earlier AOA presentation.<sup>20</sup>

Mr. Lyons concludes his letter, by noting:

“We appreciate that good will and good relationships cannot be achieved by mere decree alone. But the elimination of restrictive and repressive resolutions can create a climate in which good will and good relationships can develop and flourish. If the individual medical practitioner were not under the threat and fear of being declared ‘unethical’ by his own profession when he had any professional contact with an optometrist, we believe that optometrists would have no complaint and the general public would, thereby, be greatly served.

“To accomplish this, it seems to us that, at the very least, Resolutions 77, 78 and 79 and related rulings, etc., should be rescinded . . . .”<sup>21</sup>

One example of the softening of the positions of the AMA during this process, concerns the employment of optometrists by medical doctors. The *AMA Journal* of September 3, 1960 reported:

“a ruling that it is unethical for a medical doctor to hire an optometrist as an assistant, ‘if the optometrist is held out to the public or to the doctor’s patient as a doctor of optometry or as a licensed optometrist.’ Employment of an optometrist as an assistant is permissible only so long as the optometrist is held out as a faceless assistant, and the public is not permitted to know that he is a licensed optometrist....”<sup>22</sup>

This harsh, demeaning and dehumanizing depiction of that employment situation was later described in more neutral terms in the *AMA News* of December 26, 1966, as follows.<sup>23</sup>

“Optometry is not a cult and an ophthalmologist may employ an optometrist to assist him, provided the optometrist is identified as an optometrist and not as a doctor of medicine, the Judicial Council of the American Medical Association said.

“The Council said, however, the ophthalmologist has an ethical responsibility to take affirmative measures to make sure patients will not be given the impression the optometrist is also a doctor of medicine.”

The Executive Committee of the American Optometric Association Board of Trustees met at the O’Hare Inn in Chicago, Illinois on May 6-7, 1967. The Minutes for May 6, 1967 read as follows:

“The meeting of the Executive Committee was called to order by President [Dr. Melvin B.] Dunbar, at 8:00 P.M. Present were Drs. Dunbar, [President-Elect John G.] Sugg, [Vice President Henry W.] Hofstetter, [Secretary-Treasurer Melvin D.] Wolfberg, and Messrs. [General Counsel Harold] Kohn and [Administrative Director J. Harold] Bailey.

“Dr. Cyrus Bass, Chicago, Illinois, appeared before the Executive Committee at his request. He presented his views of the Bass vs. AMA case. He had three requests to make of the AOA Board of Trustees. These were:

- 1) that AOA establish a ‘policing commission’ to gather information on discrimination by physicians against optometrists, collate the information, and forward it to Judge Marovitz or to any other district court for contempt of court proceedings in keeping with the final decision rendered by Judge Marovitz in his case.
- 2) that he be permitted to appear before the AOA House of Delegates in Portland to plead his need for financial assistance. He indicated that his total expenses on the lawsuit had amounted to about \$50,000 and at the present time he was \$43,000 short.
- 3) he would like to have AOA spearhead a campaign to raise funds to pay off his debts.

“Dr. Bass was asked to write a letter to President Dunbar setting forth his requests along with an itemized statement of expenses. He was advised that his letter would be given full consideration.”

“The Executive Committee recessed at 10:00 P.M.”

Dr. Wolfberg recalls that his specific assigned responsibility at the meeting was to review the information that Dr. Bass brought to the meeting. He remembers that he was greatly surprised that the “documentation” consisted solely of copies of Dr. Bass’

federal tax returns for several years. Thus, in retrospect, it was a fortunate happenstance that this case was concluded by this particularly forceful judge at a very early stage.

Just days later, on May 11, 1967, Judge Marovitz issued his Order that by “stipulation of the plaintiffs and the defendants,” that “this case be, and it is hereby dismissed with prejudice [that it can’t be brought again], each party to bear its own costs.”

The Memorandum Opinion noted that: “The Court does recognize that a problem existed and the plaintiffs’ efforts in this case have contributed to bring these issues into focus . . . .”<sup>24</sup>

Judge Marovitz stated:

“Resolution No. 107, adopted by the [AMA] House of Delegates last June, and the two rulings of the Judicial Council in November, 1966, all of which have been widely circulated to AMA’s members, effectively resolve the basic issues which the Court understands constitute the gravamen of plaintiff’s complaint. These actions by the AMA comport with the suggestions made by the Court and are a great step forward in enhancing continued improvement of relationships between the medical profession and optometrists . . . .”<sup>25</sup>

The Court concluded:

“There are no winners or losers in this type of a disposition but the public and the professions gain by the mutual respect and regard in which the great medical profession and optometrists are held.

“During our discussion, the Court’s attention was called to the fact that other organizations – not party litigants – were interested in taking steps toward clarifying the situation and for their interest, we express our appreciation. . . .”<sup>26</sup>

In commenting on the Dismissal Order, Melvin B. Dunbar, O.D., President of the American Optometric Association, said: “Judge Marovitz has expressed what has been our belief from the beginning . . . that this private lawsuit was not the way to settle inter-professional problems. The American Optometric Association has worked diligently in the past, and will continue to do so in the future, to improve the relations between optometry and medicine for the benefit of the public welfare.”<sup>27</sup>

After the dismissal of the Bass case, the AOA continued in discussions with the Department of Justice. AOA General Counsel Harold Kohn and Special Counsel Ellis Lyons renewed contact with their legal counterparts at the AMA. The purpose of the meetings was “to determine what additional action the AMA could or would take to help remove the basis for much of the medically-enforced discrimination against optometry.”<sup>28</sup>

In discussions with the attorneys for AMA, the internal politics of that organization was noted, indicating the difficulties involved in passing actions that looked favorably toward optometry. When asked about how Resolution 107 passed, the AMA attorney “smiled and stated that we knew darned well why they took that action, and they were not referring to Judge Marovitz alone.”<sup>29</sup>

The AOA persisted in seeking clarification, and the ultimate elimination of the ban on “voluntary associations” between M.D.s and O.D.s, and any other specific discriminatory statement.<sup>30</sup>

For instance, Mr. Lyons directly queried the AMA Judicial Council, asking: “Is it unethical for a doctor of medicine to refer his patient to a qualified optometrist solely for optometric care?”<sup>31</sup> The AMA responded:

“It is the opinion of the Judicial Council that a doctor of medicine may refer his patient to a qualified and ethical optometrist solely for optometric care.”<sup>32</sup>

A number of articles have appeared over the years which infer that the Bass case was largely responsible for the actions taken by the AMA to correct discrimination against optometry. Clearly that is not the case.

The AOA course of action of seeking U.S. Department of Justice assistance in eliminating the discrimination was a prudent, although time-consuming process.

In retrospect, a logical assumption is that both the Bass case and the U.S. Department of Justice activities must have created serious concerns within the American Medical Association. How much, or how little, impact each had remains a question for debate.

Likening the totality of the legal actions to an iceberg, the Bass case was the public, visible aspects of the entire effort.

What is important, though, is that this article contributes to an accurate rendition of these milestones in the history of the optometric profession.

### **Acknowledgments and Personal Post-Scripts**

TEE: Our thanks to Linda Draper, Heritage Services Specialist, (who has just retired after 39 years of dedicated service of preserving the history of the profession) for her outstanding research assistance; and to Pat McMahon and Sally Meyer of Administrative Services for their skilled efforts.

MDW: Working with my friend and co-author Tom Eichhorst has been a pleasant trip down memory lane. In addition, it is important, I believe, to acknowledge some of the heroes of this chapter of optometry’s history.

First and foremost, credit must go to attorney Philip Perlman and AOA's highly-effective legal team of Special Counsel Ellis Lyons, General Counsel Harold Kohn, Washington Counsel William MacCracken and Staff Counsel Thomas Eichhorst.

Their sage legal advice was wisely heeded by successive boards of trustees. With calm resolve, the AOA leadership persevered, keeping the confidentiality and not yielding to impetuous commentary or action.

Also, to Executive Director J. Harold Bailey and his AOA staff who provided strong administrative support over the many years the process took place.

And, to the thousands of optometrists who responded overwhelmingly with documentation, which provided the necessary foundation for the successful request for legal action.

Finally, the profession of optometry is deeply appreciative of the United States Department of Justice for instituting its investigation and the resultant curtailment of efforts of organized medicine in the field of vision care which had hindered and restrained the profession of optometry.

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# Max Schapero (1921-1972), Optometric Practitioner, Educator, and Author

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## Abstract

*Max Schapero was an accomplished optometric educator. He was co-editor of the first two editions of Dictionary of Visual Science and the author of a textbook on amblyopia. This paper gives a biographical sketch and brief descriptions of his books.*

**Key words:** *optometry books, optometry dictionaries, optometry history, Southern California College of Optometry*

Max Schapero (1921-1972) earned B.S. and O.D. degrees from Los Angeles College of Optometry.<sup>1</sup> He joined the faculty of Los Angeles College of Optometry (which would become known later as Southern California College of Optometry) upon his graduation in 1949, and continued on the faculty there to his death in 1972.<sup>2</sup> He was Director of the school's Orthoptic Clinic from 1953 to 1966. Schapero also practiced optometry for a period of time, sharing offices with his wife, Dorothea, who was an ophthalmologist.<sup>3</sup>

Schapero was a Fellow of the American Academy of Optometry and served as the Chairman of its Section on Binocular Vision and Perception.<sup>4</sup> He was a Diplomat of the Academy's Section on Contact Lenses.<sup>5</sup> He served the Academy in several other roles, including being a member of the Editorial Council of the *American Journal of Optometry and Archives of the American Academy of Optometry*.

In 1963, Schapero received the Outstanding Achievement Award from the Alumni Association of the Los Angeles College of Optometry. In 1972, the American Academy of Optometry established the Max Schapero Memorial Lecture, recognizing a person who has made significant contributions to the cornea and contact lens field.<sup>6</sup>

Schapero was co-editor of two editions of the *Dictionary of Visual Science* and the author of a textbook, *Amblyopia*. Both books are among the 40 books receiving multiple nominations in a survey on the most important twentieth century optometry books.<sup>7</sup> The third edition of the *Dictionary of Visual Science*, published after Schapero's death, was dedicated to him. The co-editors stated that Schapero's "many accomplishments in research and teaching, as well as in the writing of numerous articles and the book *Amblyopia*, published just prior to his death, would have been remarkable for a strong, healthy person. Max Schapero, however, in his short lifespan was never without pain, suffering from arthritis and an intestinal ailment from childhood. Only his family and a few close associates knew of his poor health and even they never

heard a complaint from him.”<sup>8</sup> It was also observed in an obituary that Schapero’s “soundness of knowledge and enthusiasm for optometry were assets of inestimable value to his college and to optometric education in general.”<sup>3</sup>

### **Dictionary of Visual Science**

Max Schapero recognized the need for an optometry and vision science dictionary early in his career and worked with two co-editors to make such a dictionary a reality. The editors of the first two editions of the *Dictionary of Visual Science* were Max Schapero, David Cline, and Henry Hofstetter. The first edition (785 pages) was published in 1960 and the second edition (804 pages) in 1968. For the first edition, the editors wrote and accumulated definitions over a number of years, including definitions from 61 contributors. The first edition contained definitions of over 13,000 terms. For the second edition, some definitions were revised and new terms were added.

Reviews of both editions were very positive.<sup>9-12</sup> One review called the first edition “an immensely significant contribution to the field of optometry and to the whole field of visual science.”<sup>9</sup> Another review says that the “listings contained are quite comprehensive and are a credit to the perspicacity and judgment of the editing team.”<sup>10</sup> A review of the second edition called it “an eminently useful book.”<sup>12</sup> Evidence of the usefulness of the dictionary comes from the fact that it has continued into a fifth edition.<sup>13-15</sup>

### **Amblyopia**

I can recall reading Schapero’s book *Amblyopia* soon after my graduation from optometry school and thinking that it was the best organized, most clearly written optometry book that I had read at that point in time, while still being very informative. It was published in 1971. Its 305 pages were organized into four parts. The first part provided an introduction to visual acuity and fixation. Part II described categories, epidemiology, and characteristics of amblyopia. The third and fourth parts covered diagnostic and training procedures, respectively. The information on treatment included more than 20 pages on occlusion and more than 60 pages on active training.

My positive assessment of the book was corroborated by several reviewers.<sup>16-18</sup> One complimented Schapero for “careful, documented, professional treatment of his subject.”<sup>16</sup> Another review called it “very easy reading, ... a thorough insight to the development and understanding of the many characteristics of the mechanism and incidences of amblyopia.”<sup>17</sup> It was also described as a “welcome addition to the optometrist’s library.”<sup>18</sup>

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# The American Optometric Association Congress of 1910

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A little over one hundred years ago, the AOA's 13<sup>th</sup> annual convention was held at The Breakers Hotel, Cedar Point, Ohio. Estimated attendance was 310. Cedar Point boasted of having the largest and most modern hotels on the Great Lakes, and the seven-mile bathing beach was considered to be the finest in the world. In fact, the splendid surf bathing proved a great attraction. It was difficult to keep members at lectures inside the hotel. Due to the August heat, the meeting finally adjourned to the open in a grove of cedar trees.



There were more ladies at this meeting than at any previous one, and the Canadian contingent was stronger than usual. Rooms at the Breakers were \$1.00-\$1.50 per person, per day. Scientific sessions were popular as always, and the program included practical talks related to the business or commercial side of optometry. The exhibit hall was called a “marvel of beauty as well as a showhouse of useful and new things that every delegate was glad to see.” Souvenirs were abundant.

Ambiance aside, the meeting had somber and serious tones due primarily because the American Medical Association meeting in St. Louis the year before (1909) had adopted a resolution “instructing its officers to begin at once the prosecution of non-medical refractionists and endeavor to obtain Supreme Court decisions interpreting the practice of optometry as a violation of the medical practice act.”

At the 1910 convention, according to Gregg,<sup>1</sup> President H .J. Cook advanced proposals to “promote a universal uplift of the profession, primarily aimed toward the ultimate goal of an optometry law in every state.” Cook advanced certain action proposals that are as valid today as they were 100 years ago:  
*“A committee on statistics. To make an annual report in tabulated form showing number of refractionists, types of practice, and such things.*”

*“Strengthen the organization. To develop concrete evidence of the usefulness of the National Society and to demonstrate its right to exist.*

*“A publicity committee. To make it known that optometry is as distinctly special as dentistry, law or the gospel.*

*“Uniformity of state boards. To develop a comprehensive syllabus with uniform examination conditions.*

*“A lecture bureau. To place good optometric speakers at all educational gatherings.”<sup>1</sup>*

By 1910 the association had 6,500 paid members and 24 states had optometry laws. Discussion at the convention was that the national association should take a more active and aggressive part on behalf of new optometry laws. Up to this time the burden and frustration of the work had fallen almost altogether on the state societies, and there was a feeling that the national association should lend a hand.



The association was growing. A new delegated system of representation at convention seemed advisable to assure fair deliberations and a resolution was passed to establish it. It was voiced that physicians and the general public were misinformed about optometry. Charles Prentice’s phrase “a lens is not a pill” was taken up as a slogan, and at this 1910 convention button-hole lapel pins were worn by “one and all” with that slogan.

The announcement of the establishment of a course in optometry at Columbia University was met with much jubilation as it was a big step for recognition of the profession. Cedar Point, Ohio is known in optical history as the place at which the American Association of Opticians changed its name to the American Optical Association, changed again in 1919 to the American Optometric Association.

The 1910 convention was notable for the good fellowship and harmony that prevailed. Those attending the Salt Lake City convention in 1911 would find a different spirit.<sup>2</sup>

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# H.H. Emsley and W.H.A. Fincham, Optics Book Authors

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## **Abstract**

*H.H. Emsley (1890-1972) and Walter H.A. Fincham (1889-1977) were long time instructors of optometry students at Northampton Polytechnic Institute in England. This paper provides brief biographical sketches of each and discusses the commonly used optics books that they wrote.*

**Key words:** *optics books, optometric education, optometry books, optometry history.*

## **Harold Heaton Emsley (1890-1972)**

H.H. Emsley was born at Yorkshire, England and earned a B.Sc. in engineering at age 19.<sup>1</sup> After spending some time in the United States, Canada, and India, he was employed in research and development at Barr and Stroud, an optical engineering firm in Glasgow. During World War I, he was manager of the infantry range-finder assembly department at Barr and Stroud.<sup>2</sup> In 1919, Emsley was appointed head of the technical optics department of Northampton Polytechnic Institute (now known as City University London), where he taught optometry students.<sup>3</sup> Emsley retired from teaching in 1947, but he continued working for a number of years as a consultant to optical and instrument companies.<sup>2</sup>

Hardy said that: "Emsley's strength was as an organizer and as an expositor. His technical writing reached a high standard; accurate, lucid, well constructed."<sup>2</sup> Emsley published several significant books. In 1921, he and William Swaine published a English translation from German of *The Theory of Modern Optical Instruments* by Alexander Gleichen (365 pages). It covered general optics, telescopes, stereoscopes, range finders, microscopes, photographic lenses, ophthalmic optics, and related topics.

In 1928, Emsley and Swaine published *Ophthalmic Lenses*. I examined a copy of the second edition, published in 1932 (338 pages). In the preface, the authors stated that the book was an outgrowth of their lectures at Northampton Polytechnic Institute (Emsley) and at West Ham Municipal College (Swaine). Part I of the book contained material that they characterized as being related to everyday clinical practice: spherical spectacle lenses, astigmatic lenses, prisms, lens decentration, bifocals, protective lenses, optical dispensing, and lens surfacing. They noted that Part II contained material of interest to manufacturers and persons in the optical industry: lens form and thickness, image formation, aberrations, spectacle lens design, relation of binocular vision to spectacle lenses, and other types of lenses. Subsequent editions were published in 1935, 1940, 1946, and 1951, followed by a two volume revision of the book

by Arthur G. Bennett in 1968. A review of the first edition said that it was “a valuable contribution to ophthalmic science” and that it “fills a gap in ophthalmic literature.”<sup>4</sup> After its six editions, it was referred to as “a standard classic in the field of optometry.”<sup>5</sup>

In 1936, Emsley published the first edition of his well-known book, *Visual Optics*. Later editions were published in 1939, 1944, 1946, and 1952-53. I examined copies of the fourth and fifth editions. Topics in the fourth edition (647 pages) were introduction to the visual system, retinal imagery, visual acuity, refractive errors, accommodation and convergence, ophthalmoscopy, retinoscopy, keratometry, binocular vision, heterophoria, space perception and aniseikonia, anisometropia, schematic eyes, ocular aberrations, and entoptic phenomena. The fifth edition was split into two volumes and information on color vision and other areas of sensory aspects of vision were added. Emsley's *Visual Optics* was an authoritative book with much information applicable to clinical practice. It was one of forty books receiving multiple nominations in a survey on most important twentieth century optometry books.<sup>6</sup>

Emsley also wrote *Factory Costing and Organisation* (with John Loxham, 1924, 1939, 1947), *Aberrations of Thin Lenses: An Elementary Treatment for Technicians and Students* (1956, 352 pages) and *Emsley's Optical Tables and Data* (1968, 231 pages). In the preface to *Aberrations of Thin Lenses: An Elementary Treatment for Technicians and Students*, Emsley stated that the book was written for applications in the factory and laboratory and to help students bridge the gap between geometrical optics and problems of optical design. *Emsley's Optical Tables and Data* was a reference book with tables, formulas, and information divided into categories of weights and measures, mathematics, optics, and ophthalmics. It included a section comparing optical terms in English, French, and German.

### **Walter Henry Angel Fincham (1889-1977)**

Walter Fincham was born at Islington, Greater London, England.<sup>7</sup> In 1904, he became a junior assistant in the optical workshop at Northampton Polytechnic Institute in London. He continued working there until 1950, with an interruption during World War I working on optical munitions.<sup>8</sup> In 1911, he passed the examinations of the Worshipful Company of Spectacle Makers. In 1919, he was appointed lecturer and demonstrator in the Applied Optics Department at Northampton Polytechnic Institute. R. Fletcher, a former student, complimented Fincham for “his genial and painstaking instruction” and for “his inspiration, clarity and kindness.”<sup>8</sup>

Walter Fincham was a bachelor and for many years lived with his brother Edgar.<sup>8</sup> Edgar F. Fincham (1893-1963) was also on the staff at Northampton Polytechnic Institute for many years (1919-1950), and then from 1950 to 1961, he was the head of the research department in ophthalmic optics at the Institute of Ophthalmology in London.<sup>9,10</sup> Edgar Fincham did extensive research on accommodation and on the interactions of accommodation and convergence.

Several generations of optometry students have been familiar with Walter Fincham's optics book. *Optics* was first published in 1934, with subsequent editions by

Fincham in 1936, 1939, 1942, 1945, 1951, 1954, and 1965. An eighth edition by Fincham and M.H. Freeman appeared in 1974. Additional updates of the book have followed, the most recent being the 11<sup>th</sup> edition in 2003 by M.H. Freeman, C.C. Hull, and W.N. Charman. A review of the first edition (462 pages) claimed that it was “the most complete and comprehensive textbook written on this subject.”<sup>11</sup> A review of the eighth edition stated that the book has been “demonstrated to be a classic.”<sup>12</sup> It was among the forty books nominated multiple times for being one of the most important twentieth century optometry books.<sup>6</sup>

Walter and Edgar Fincham were collectors of books on the eye and optics. Their books were willed to the City University London. Titles in the collection dated from the 16<sup>th</sup> through the 20<sup>th</sup> centuries and included books by Scheiner, Descartes, Molyneux, Newton, Robert Smith, Benjamin Martin, George Adams, Huygens, Brewster, Donders, Landolt, Tscherning, and others.<sup>13,14</sup>

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# Miscellany

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## Hatfields, McCoys, and Coleman Hatfield, O.D.

Earlier this year the History television channel aired a mini-series on the Hatfields and McCoys. One of the descendents of the Hatfields of West Virginia was an optometrist named Coleman Caldwell Hatfield (1926-2008) who wrote two books about the Hatfield and McCoy feud, *The Feuding Hatfields and McCoys*, with F. Keith Davis, and *Tale of the Devil – The Biography of Devil Anse Hatfield*, with Robert Y. Spence. According to the website of the publisher Woodland Press, they were used as resource material for the History channel mini-series.<sup>1</sup> Coleman Hatfield was a great-grandson of Anderson “Devil Anse” Hatfield, who was portrayed by Kevin Costner in the History channel program, and a grandson of Cap Hatfield, who was also prominent in the program.<sup>1</sup>

Coleman Hatfield attended Concord College.<sup>2</sup> He graduated from Illinois College of Optometry in 1967.<sup>3</sup> He practiced optometry in Chicago, Illinois and Logan, West Virginia, and for a period of time was an instructor at Illinois College of Optometry. In Logan, West Virginia, he practiced with his daughter, Arabel E. Hatfield.<sup>2,4</sup> His son, R. Mark Hatfield, a retinal surgeon, also spent some time in that office.<sup>4</sup> Coleman Hatfield served as a president of the West Virginia Optometric Association. He authored a book entitled *Visual Training: The Joy of Optometry*, published by the Optometric Extension Program (1977, 1990). He was a Fellow of the American Academy of Optometry, a Fellow of the College of Optometrists in Vision Development, and a member of the examination board for fellowship in the College of Optometrists in Vision Development.<sup>4</sup>

## Fremont F. Ellis (1897-1985)

Another recent television program led to an additional optometry history research foray. On *Antiques Roadshow*, someone had brought in a painting which the expert identified as being painted by Fremont Ellis. He went on to say that Ellis had briefly practiced optometry before turning to painting full-time. A search for information about Ellis led me to a 122 page biography.<sup>5</sup>

Fremont F. Ellis was born October 2, 1897 in Virginia City, Montana. His father was a dentist who traveled to do dental work in remote areas in Montana. His father then got into mining, training a horse to do tricks in fairs, running a movie theater, and other enterprises. The family moved very frequently, and lived at times in various regions of the United States. The only time Fremont was in one place long enough to receive formal schooling was to attend first grade. He was otherwise taught by his parents. He was said to have learned about artistic aspects of light and color from his

mother who designed hats. At 12 and 13 years of age, he did photographic work and sold portraits.

Fremont Ellis's interest in art began when he visited the Metropolitan Museum of Art in New York City at about 13 years of age. He then read everything he could about art and artists and tried to duplicate paintings from memory. He also attended the Art Student's League for three months when he was 14 years old.

When Fremont Ellis was in his late teens, his mother suggested that he should learn another skill besides painting. According to the biography, Ellis "went to Los Angeles for a nine month optometry course, but after eight months he left because he felt he had learned enough about refractions to make prescription glasses." (p. 37) However, James Gregg's history of the Southern California College of Optometry lists F.F. Ellis as a 1917 graduate of the Los Angeles Medical School of Ophthalmology and Optometry, and he is included in the photograph of the March, 1917 class.<sup>6</sup>

According to the biography, Ellis set up practice in El Paso, Texas. (I was unable to find him in El Paso in the 1918 or 1920 *Blue Book of Optometrists*) After his own practice failed, he worked for a short period of time for another optometrist. By then Ellis was making some money from his painting.

By 1920, he had given up optometry and moved to Santa Fe, New Mexico. In Santa Fe, he met some other painters, who, with him, became known as Los Cinco Pintores (The Five Painters). He lived in or near Santa Fe most of the rest of his life. Ellis became especially well known for his landscape paintings. He continued painting until shortly before his death in 1985 at 87 years of age, completing more than two thousand paintings. The biography lists twelve museums in the West and Southwest where his paintings are displayed.

#### **Article on Ernest Edmund Maddox**

The 2009 issue of the *American Orthoptic Journal* contained an article on E.E. Maddox.<sup>7</sup> The article describes Maddox's family life and professional career and achievements. He was born in England in 1860. He attended the University of Edinburgh and studied medicine there, receiving the M.D. degree in 1889. He became a Fellow of the Royal College of Surgeons, Edinburgh in 1894. The author of the article says that Maddox "became well known for his clinical acumen and surgical skills. He was greatly esteemed by his colleagues and loved by his patients, who sought his care from across the world." (p. 104)

The author identified Maddox's main interest as strabismus, but noted that he was also very interested in optics. Maddox was greatly concerned with the accuracy and fit of glasses and "placed much emphasis on correct placement of optical centers, measurement of interpupillary distances (measured monocularly and summated), and correct frame position." (p. 106) Maddox did orthoptics for strabismus, and he was often assisted by his daughter Mary, who subsequently started her own practice as an orthoptist.

Topics of Maddox's published papers included accommodation and convergence, refractive procedure, astigmatism, and ocular surgery. He received several awards for his writings. His books were *Clinical Use of Prisms and the Decentering of Lenses*, *Tests and Studies of the Ocular Muscles*, and *Golden Rules of Refraction*, each of which went to multiple editions. Maddox is known for his component classification of convergence and for devising several tests and instruments, among which were the Maddox tangent scale, Maddox wing, cheiroscope, and Maddox rod. He died in 1933, at 73 years of age.

### **Article on Civil War Spectacles**

An interesting and informative article entitled "History on Your Face – Common Spectacle Styles Before, During and After the Civil War, 1835-1870," by Alan R. McBrayer and Thomas F. Valenza, is available online at:  
[www.historiceyewearcompany.com/historiceyewear/files/OnYourFaceFinal2-2.pdf](http://www.historiceyewearcompany.com/historiceyewear/files/OnYourFaceFinal2-2.pdf).

The authors define spectacles as eyeglass frames that include temples. During the period from 1835 to 1870, spectacles were widely available and basic types did not change greatly. Most vision aids in North America were imported from England and Europe prior to the War of 1812, but after that manufacture in the United States increased greatly. Most lenses from 1835 to 1870 were glass. Clear quartz crystals, known as pebbles, were also used and were harder, but were much more expensive. Most spectacle lenses were oval in shape. The next most common shapes were oblong and octagon shapes.

There were four main types of spectacle temples during this period of time: (1) sliding temples, temples which could be reduced to a shorter length for storage; (2) ladies' temples or single joint temples, straight temples that extended past the ears; (3) pivot or turnpin temples, temples with a second piece that could be turned on a pivot; (4) single wire curl or hook temples, that wrapped around the back of the ear.

Mass production of spectacles in the United States began in about 1860. New developments in spectacles were slow during the Civil War and the years leading up to it. There were 29 U.S. patents relating to spectacles in the five years after the Civil War compared to 22 patents in the thirty-five years before it.

There are documented cases of spectacle wear by Civil War soldiers. It is also known that spectacles were used by older officers such as Generals Robert E. Lee and George Meade. This 18 page article contains many diagrams and photographs of spectacles and cases.

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# **Book Review: The Genesis of Science: How the Christian Middle Ages Launched the Scientific Revolution**

**The Genesis of Science: How the Christian Middle Ages Launched the Scientific Revolution. James Hannam. Washington, DC: Regnery Publishing, 2011. xxiii + 454 pages. ISBN: 978-1-59698-155-3. Hardcover, \$29.95.**

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James Hannam, who holds a Ph.D. in the history of science, presents evidence in this book to show that, contrary to popular belief, the Middle Ages was a time of scientific and technological progress. As a prime illustration, he noted that spectacles were invented in medieval Europe. He describes other many developments with narratives on unheralded scholars responsible for those advances.

Among the better known medieval scholars were Robert Grosseteste (c.1170-1253) and Roger Bacon (1214-1292), theologians who wrote significant works in natural philosophy, as science was then known. Optics was among the topics about which they both wrote. Grosseteste believed that “understanding light would also tell him something important about God.” (p. 143) Bacon, whose work came late enough after Grosseteste’s that Arabic and Greek books on science had become available in Latin, “produced an impressive synthesis of all the advances up until his time” in the science of light. (pp. 142-143) Other thirteenth century philosophers who studied optics, or “perspective” as it was known at the time, were John Peckham, archbishop of Canterbury, and Polish theologian Witelo.

Spectacles were invented in the late thirteenth century. Hannam states: “Spectacles meant that monks and other scholars could continue working even after their eyesight began to deteriorate with age....mechanical clocks started to tick in England and Italy at about the same time. These inventions catapulted medieval Europe into first place in the race to become the most technologically advanced civilization on earth.” (p. 146)

One of the lesser known natural philosophers discussed by Hannam was Thomas Bradwardine (c.1290-1349). He was one of the scholars at Merton College of Oxford known as the Merton Calculators. The author credits Bradwardine with showing that mathematics was a vital part of scientific work rather than being a separate discipline from science.

Hannam suggested that the Middle Age Church was important for scientific advance. He notes that universities were the main scientific institutions in the Middle

Ages and they were supported by the Church. He writes: “The popular image of the medieval Church as a monolithic institution opposing any sort of scientific speculation is clearly inaccurate. Natural philosophy had proven itself useful and worth supporting. It is hard to imagine how any philosophy at all would have taken place if the Church-sponsored universities had not provided a home for it. But the price of having a rich sponsor is having to bend to their interests and avoid subjects that they find controversial....[Natural philosophers] were free to speculate as much as they pleased as long as they avoided religious controversy.” (p.190)

Johann Gutenberg’s invention of the printing press in the mid fifteenth century was mentioned by the author as a world changing advance. He noted that works of fourteenth century natural philosophers were among the first printed books. That included books by John Buridan (c.1300-c.1358), who speculated about the rotation of the earth; Nicole Oresme (c.1325-1382), who pioneered the application of graphs to physical problems; William Heytesbury (c.1313-1373), who was first to record the mean speed theorem describing motion of an object under uniform acceleration, as with gravity; and Albert of Saxony (c.1316-1390), who diagrammed the curved path of projectiles. Though these persons and other medieval natural philosophers are relatively unknown today, they set the stage for more recognizable scientists, such as Kepler and Galileo.

Hannam noted that Johannes Kepler (1571-1630) solved “two of the greatest scientific problems of the Middle Ages” – planetary motion and ocular imagery. The title of one of Kepler’s books on optics contained the phrase “Supplements to Witelo.” Hannam writes: “In putting Witelo’s name in the title of his book on optics, Kepler was not afraid to admit to his sources. The same cannot be said for his contemporary Galileo Galilei. His achievements were just as great as Kepler’s, but Galileo was a great deal more circumspect about where he was getting his ideas...” (p. 302) Galileo brought together work of medieval natural philosophers, discarded parts that were incorrect, and made corrections and advancements with experimentation.

Kepler and Galileo made previous work obsolete, but that previous work made their achievements possible. Hannam notes that another contribution of the medieval natural philosophers was “to make modern science even conceivable. They made science safe in a Christian context, showed how it could be useful, and constructed a worldview where it made sense.” (p. 342) The book includes a timeline, a “list of key characters” that serves as a sort of biographical glossary, reference notes, and a bibliography. I found the book to be interesting and informative while providing new perspectives on the development of science.