

motion. There is also a chapter on the perception of art, which analyzes conventions of perspective and outlining that characterize Western art. One cannot fail to take pleasure in the visual gyrations that are presented in the book, and the text invites introspection about the complexity of visual processes that we tend to take for granted.

However, be forewarned that the book is not medical science, at least not as we know it as physicians and physiologists. In the preface, the author acknowledges that he has little to say about physiologic mechanisms of the brain or the eye. The explanations for visual phenomena in the book are presented largely in the language of psychology and in terms of concepts such as past visual experience. If one is looking for answers about how perception works ophthalmologically, it will be disappointing. For example, Rock notes that psychologists have argued for centuries over why the moon seems larger on the horizon than up in the sky. One hypothesis is that the horizon seems closer, and thus the moon is perceived to be larger; another is that the horizon appears farther, and thus a moon of equal size is interpreted to be a larger object. It is fun to read of such controversies, but hard to be satisfied by them scientifically.

The neural circuitry of the primary and secondary visual cortices have been worked out to a large degree in recent years by scientists such as Hubel and Wiesel, Zeki, and others. Individual cortical cells have been found to respond selectively to discriminate colors, recognize motion, and define the precise orientation of an image. It would be nice to know how the perceptual phenomena of this book relate to these specialized cells and to the neural circuits that process visual information. However, that is not Rock's purpose, and ophthalmologists who want to know how vision really works should look at recent books by Hubel and Zeki, although they are a bit tougher reading.

Ophthalmologists work with eyes all day long but rarely deal with vision beyond Snellen visual acuity. Yet it is the broader power and complexity of visual perception that makes it so valuable to the human species, and that induces people to pay to preserve it. Taken as a dose of example rather than explanation, this book will return some pleasure and give some insight into the why of our profession.

- **Aries Ophthaline — Ophthalmology MEDLINE on CD-ROM. Knowledge Finder version 3.25.** North Andover, Massachusetts, Aries Systems Corp., 1995. Two CD-ROMs with 200 pages user's manuals. Yearly subscription: annual update (no current year disk) \$325; quarterly updates \$545; monthly updates \$740. Non-U.S. subscribers must add \$50 National Library of Medicine use fee.

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MINIMAL RECOMMENDED HARDWARE CONFIGURATION: Windows: 486 IBM PC or compatible computer, Windows version 3.1, 10 MB available hard disk space, 8 MB RAM, and an SVGA monitor. Macintosh: 68030 equipped computer, system version 7.0, at least 10 MB available hard disk space, and 8 MB RAM.

The complete MEDLINE database contains over seven million references from over 3,700 medical journals, dating back to 1966. Using this database efficiently requires multiple CD drives, and the expense is beyond the reach of most physicians and departments. Several MEDLINE vendors provide lower cost packages, which contain databases in specific fields of medicine. By restricting the scope of journals, these packages offer the clinically oriented retrieval sets as compared to the unabridged MEDLINE.

We searched the term, "mitomycin C," in the complete MEDLINE database (the last ten years), and found 3,254 references, most of which had little relevance for the practicing ophthalmologist. In contrast, searching "mitomycin C" in Ophthaline retrieved 89 references, most of which were citations from ophthalmological journals. We are not aware of any key word or combination of key words that can similarly narrow a search conducted on the complete MEDLINE database to exclusively ophthalmological topics or journals.

The Aries Ophthaline package contains two CD disks. The first disk includes ophthalmologic and other selected references for the past ten years (excluding the current year), and is updated annually. The second disk contains the complete (unabridged) MEDLINE database for the current year and is cumulatively updated either quarterly or monthly.

The first disk contains references of three types: (1) all references from 70 selected ophthalmologic journals; (2) all references from a core list of 40 leading nonophthalmologic journals; and (3) other references selected from the unabridged MEDLINE database; based on screening for ophthalmology-related MeSH key-words.

The Knowledge Finder retrieval software uses a probabilistic retrieval method (fuzzy logic) to rank references according to their relevance. For each matched reference, a score is calculated according to the number and location of the search terms. A higher score is given if the terms appear in the title or in the major MeSH field, as opposed to appearance in the abstract or minor MeSH field.

The probabilistic retrieval method allows for queries to be made in English, precluding the need for the sophisticated and strict Boolean search syntax. Thus, a search phrase such as, "complications of cataract surgery in patients with pseudoexfoliation," is legitimate.

The following are some of the features unique to the Knowledge Finder interface. One can limit the search to include reviews or English language references by checking the appropriate buttons. By using a word variance feature, it is possible to generate a search query that is wider in scope than requested. When misspelling a search term, the user is notified and presented with alternative suggestions from the

dictionary. Furthermore, there is a relevance filter that may limit retrieved references to those with higher relevance scores.

We encountered a few minor drawbacks of the package, including the necessity to switch repeatedly between the two CD-ROM disks and the lack of a searchable alphabetical index in the help utility. Experienced MEDLINE users may find their first encounter with the Knowledge Finder interface, and with probabilistic retrieval, somewhat uneasy and may be confused as to the exact construction of search queries. However, careful reading of the manuals will clarify the unique aspects of the search language. There is always the option of shutting down the fuzzy logic default in favor of a classic Boolean (and, or, and not) search.

Aries Systems Corp. also provides an Internet support site. We visited this Web site (<http://www.ariessys.com>) and found introductory information as well as the option of ordering, through E-mail, a free demonstration CD containing the Knowledge Finder module along with the unabridged 1992 MEDLINE database.

In general, searches using this program are conducted by a simple, graphic interface with unique searching capabilities making this package appealing to both the novice and the experienced MEDLINE searcher.

part of the Bulletin Des Societes D'Ophthalmologie De France, but available independently, is a beautifully organized and illustrated survey of retinal pigment epithelial function and acquired diseases from the vantage point of the clinician. Dr. Soubrane is a distinguished expert on age-related macular degeneration and associated retinal pigment epithelial dysfunction, and she has assembled a strong group of collaborators, mostly from France, to write this book.

The book is divided into four sections. The first section is a thorough but crisp treatment of structural and functional characteristics of the retinal pigment epithelium that which provides an excellent and up-to-date review of a lot of new information. A shorter section on pathophysiology describes categories of pathologic change that afflict the retinal pigment epithelium, and the process of aging. There is a brief section on imaging and the functional evaluation of the retinal pigment epithelium. The final section, comprising slightly more than one half of the book, is devoted to clinical disorders of the retinal pigment epithelium.

The longest chapter concerns degenerative changes such as drusen, retinal pigment epithelial detachments, and choroidal neovascularization. Indocyanine green angiograms are extensively correlated with fluorescein studies to clarify pathophysiology. A chapter on central serous chorioretinopathy surveys well the various theories of origin. Other topics covered well include toxic retinopathy, choroidal and retinal inflammations, infections, and tumors. Two interest-

ing chapters describe retinal pigment epithelial involvement in diseases in which the retinal pigment epithelium is sometimes ignored by clinicians, rhegmatogenous detachment, and retinovascular disease (including diabetes).

One of the strong features of this book is its consideration of the pathophysiology of retinal pigment epithelial disorders, while focusing attention on the most important and clinically relevant aspects of each condition. The major drawback to this volume, for the American reader, is that it is in French. However, readers with a modicum of scientific French will be able to follow the text, and the illustrations, particularly in the clinical sections, speak largely for themselves. A second drawback, a consequence of the book's journal origin, is the lack of an index.

There is no current book in English concentrating upon the retinal pigment epithelium, the latest being *The Retinal Pigment Epithelium* (edited by Zinn and Marmor) in 1979. A new version of this book (edited by Marmor and Wolfensberger) should appear by late 1997 but will in many respects be complementary to Soubrane's book since different degrees of emphasis are put on some of the diseases and physiologic processes. There are some chapters in Soubrane's book that I would covet for my own; I hope she will feel the same way about mine. I recommend this book highly to anyone studying or working with disorders of the retina and retinal pigment epithelium; the book will improve your practice, your understanding of disease, and also your French!

CORRECTION

In the review of *Aries Ophthalmine—Ophthalmology MEDLINE on CD-ROM. Knowledge Finder version 3.25* (Am J Ophthalmol 121:337, March 1996), the name of Ehud Zamir, who coreviewed the software, was inadvertently omitted.

THE JOURNAL regrets this oversight.