



# The New Visual Neurosciences (MIT Press)

From The MIT Press

Download now

Read Online ➔

## The New Visual Neurosciences (MIT Press) From The MIT Press

Visual science is the model system for neuroscience, its findings relevant to all other areas. This essential reference to contemporary visual neuroscience covers the extraordinary range of the field today, from molecules and cell assemblies to systems and therapies. It provides a state-of-the art companion to the earlier book *The Visual Neurosciences* (MIT Press, 2003). This volume covers the dramatic advances made in the last decade, offering new topics, new authors, and new chapters.

*The New Visual Neurosciences* assembles groundbreaking research, written by international authorities. Many of the 112 chapters treat seminal topics not included in the earlier book. These new topics include retinal feature detection; cortical connectomics; new approaches to mid-level vision and spatiotemporal perception; the latest understanding of how multimodal integration contributes to visual perception; new theoretical work on the role of neural oscillations in information processing; and new molecular and genetic techniques for understanding visual system development. An entirely new section covers invertebrate vision, reflecting the importance of this research in understanding fundamental principles of visual processing. Another new section treats translational visual neuroscience, covering recent progress in novel treatment modalities for optic nerve disorders, macular degeneration, and retinal cell replacement. *The New Visual Neurosciences* is an indispensable reference for students, teachers, researchers, clinicians, and anyone interested in contemporary neuroscience.

**Associate Editors** Marie Burns, Joy Geng, Mark Goldman, James Handa, Andrew Ishida, George R. Mangun, Kimberley McAllister, Bruno Olshausen, Gregg Recanzone, Mandyam Srinivasan, W. Martin Usrey, Michael Webster, David Whitney

**Sections** Retinal Mechanisms and Processes Organization of Visual Pathways Subcortical Processing Processing in Primary Visual Cortex Brightness and Color Pattern, Surface, and Shape Objects and Scenes Time, Motion, and Depth Eye Movements Cortical Mechanisms of Attention, Cognition, and Multimodal Integration Invertebrate Vision Theoretical Perspectives Molecular and Developmental Processes Translational Visual Neuroscience

 [\*\*Download\*\* The New Visual Neurosciences \(MIT Press\) ...pdf](#)

 [\*\*Read Online\*\* The New Visual Neurosciences \(MIT Press\) ...pdf](#)

# The New Visual Neurosciences (MIT Press)

*From The MIT Press*

## The New Visual Neurosciences (MIT Press) From The MIT Press

Visual science is the model system for neuroscience, its findings relevant to all other areas. This essential reference to contemporary visual neuroscience covers the extraordinary range of the field today, from molecules and cell assemblies to systems and therapies. It provides a state-of-the art companion to the earlier book *The Visual Neurosciences* (MIT Press, 2003). This volume covers the dramatic advances made in the last decade, offering new topics, new authors, and new chapters.

*The New Visual Neurosciences* assembles groundbreaking research, written by international authorities. Many of the 112 chapters treat seminal topics not included in the earlier book. These new topics include retinal feature detection; cortical connectomics; new approaches to mid-level vision and spatiotemporal perception; the latest understanding of how multimodal integration contributes to visual perception; new theoretical work on the role of neural oscillations in information processing; and new molecular and genetic techniques for understanding visual system development. An entirely new section covers invertebrate vision, reflecting the importance of this research in understanding fundamental principles of visual processing. Another new section treats translational visual neuroscience, covering recent progress in novel treatment modalities for optic nerve disorders, macular degeneration, and retinal cell replacement. *The New Visual Neurosciences* is an indispensable reference for students, teachers, researchers, clinicians, and anyone interested in contemporary neuroscience.

**Associate Editors** Marie Burns, Joy Geng, Mark Goldman, James Handa, Andrew Ishida, George R. Mangun, Kimberley McAllister, Bruno Olshausen, Gregg Recanzone, Mandyam Srinivasan, W. Martin Usrey, Michael Webster, David Whitney

**Sections** Retinal Mechanisms and Processes Organization of Visual Pathways Subcortical Processing Processing in Primary Visual Cortex Brightness and Color Pattern, Surface, and Shape Objects and Scenes Time, Motion, and Depth Eye Movements Cortical Mechanisms of Attention, Cognition, and Multimodal Integration Invertebrate Vision Theoretical Perspectives Molecular and Developmental Processes Translational Visual Neuroscience

## The New Visual Neurosciences (MIT Press) From The MIT Press Bibliography

- Sales Rank: #1414052 in Books
- Published on: 2013-10-25
- Original language: English
- Number of items: 1
- Dimensions: 10.88" h x 2.13" w x 8.50" l, 7.82 pounds
- Binding: Hardcover
- 1696 pages



 [\*\*Download\*\* The New Visual Neurosciences \(MIT Press\) ...pdf](#)

 [\*\*Read Online\*\* The New Visual Neurosciences \(MIT Press\) ...pdf](#)

## **Editorial Review**

### **Review**

Of all our senses, vision is the most human. For those interested in how vision has evolved, how it develops, and how it works under normal and pathological conditions, this comprehensive volume is a must.

(Pasko Rakic, Duberg Professor of Neurobiology and Neurology, Yale University School of Medicine)

This cornucopia of visual delights contains an extraordinarily rich and authoritative review of the current state of knowledge of the most remarkable and most thoroughly researched of our senses. Werner and Chalupa have gathered together contributions from leading experts in every field, from the molecular biology of phototransduction to the neural computations that underpin our perception of the visual world. This huge book should and will grace the shelves of every serious student of vision.

(Colin Blakemore, Professor of Neuroscience and Philosophy and Director of the Centre for the Study of the Senses, School of Advanced Study, University of London, and Emeritus Professor of Neuroscience, University of Oxford)

Werner and Chalupa have done it again. This work will stand as a monumental and fundamental reference source for the visual sciences. Look no further for a book on the neuroscience of vision and place this volume in the middle of your desk. If it is not in here, don't worry about it.

(Michael S. Gazzaniga)

### **About the Author**

John S. Werner is Distinguished Professor in the Departments of Ophthalmology and Vision Science and Neurobiology, Physiology, and Behavior at the University of California, Davis.

Leo M. Chalupa is Vice President for Research and Professor of Pharmacology and Physiology at George Washington University.

## **Users Review**

### **From reader reviews:**

#### **Clarence Guyer:**

What do you think about book? It is just for students because they are still students or the idea for all people in the world, what best subject for that? Only you can be answered for that question above. Every person has various personality and hobby for each and every other. Don't to be forced someone or something that they don't would like do that. You must know how great and important the book The New Visual Neurosciences

(MIT Press). All type of book could you see on many methods. You can look for the internet resources or other social media.

**Paul Cockrell:**

What do you about book? It is not important to you? Or just adding material when you require something to explain what you problem? How about your extra time? Or are you busy individual? If you don't have spare time to accomplish others business, it is make you feel bored faster. And you have free time? What did you do? Everybody has many questions above. They need to answer that question due to the fact just their can do that. It said that about publication. Book is familiar in each person. Yes, it is appropriate. Because start from on pre-school until university need that The New Visual Neurosciences (MIT Press) to read.

**Theresa Adams:**

The e-book untitled The New Visual Neurosciences (MIT Press) is the book that recommended to you to study. You can see the quality of the reserve content that will be shown to a person. The language that article author use to explained their way of doing something is easily to understand. The copy writer was did a lot of study when write the book, hence the information that they share to you is absolutely accurate. You also will get the e-book of The New Visual Neurosciences (MIT Press) from the publisher to make you more enjoy free time.

**Theresa Nash:**

You can obtain this The New Visual Neurosciences (MIT Press) by check out the bookstore or Mall. Merely viewing or reviewing it could to be your solve issue if you get difficulties for the knowledge. Kinds of this book are various. Not only simply by written or printed and also can you enjoy this book by means of e-book. In the modern era like now, you just looking by your mobile phone and searching what your problem. Right now, choose your own personal ways to get more information about your publication. It is most important to arrange yourself to make your knowledge are still change. Let's try to choose right ways for you.

**Download and Read Online The New Visual Neurosciences (MIT Press) From The MIT Press #EYH7IR3C1AD**

## **Read The New Visual Neurosciences (MIT Press) From The MIT Press for online ebook**

The New Visual Neurosciences (MIT Press) From The MIT Press Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read The New Visual Neurosciences (MIT Press) From The MIT Press books to read online.

## **Online The New Visual Neurosciences (MIT Press) From The MIT Press ebook PDF download**

**The New Visual Neurosciences (MIT Press) From The MIT Press Doc**

**The New Visual Neurosciences (MIT Press) From The MIT Press Mobipocket**

**The New Visual Neurosciences (MIT Press) From The MIT Press EPub**

**EYH7IR3C1AD: The New Visual Neurosciences (MIT Press) From The MIT Press**