Digital Lighting And Rendering (Voices That Matter)
Learn the fine art and craft of digital lighting and rendering from an experienced pro whose lighting work you’ve seen in blockbuster films such as Monsters University, Toy Story 3, Up, WALL-E, Ratatouille, and The Incredibles. Jeremy Birn draws on his wealth of industry and teaching experience to provide a thoroughly updated edition of what has become the standard guide to digital lighting and rendering. Using beautiful, full-color examples; a friendly, clear teaching style; and a slew of case studies and tutorials, Jeremy demonstrates how to create strategic lighting for just about any project using any 3D application. By explaining not just how to use various lighting techniques but why, this guide provides the grounding graphics pros need to master Hollywood lighting techniques.

Learn how to pinpoint problems with your lighting and solve them to produce professional results. Break scenes into passes and layers, and convincingly composite 3D models into real-world environments. Adopt a linear workflow for more convincing lighting, global illumination, and compositing. Apply advanced rendering techniques using subsurface scattering, physically based lighting, caustics, and high dynamic range images. Build a bigger bag of tricks by learning “old-school” approaches such as tweaking shadow maps, faking GI with occlusion passes, and other cheats and tricks that save render time. Develop realistic materials and shaders, and design and assign detailed texture maps to your models. Mimic photographic exposure and cinematography techniques to simulate real-life f-stops, lens breathing, bokeh effects, and Kelvin color temperatures for more photorealistic renderings.

Learn to light characters and environments in different situations: day or night; natural or artificial lights; indoors or outdoors; and in clear air, thick atmosphere, or under water. Understand production pipelines at visual effects and animation studios, and prepare for collaborative work on large lighting teams. Get the latest insights into industry trends, and how to develop your lighting reel and get a job in an increasingly competitive industry. Download many of the 3D scenes used in this book from the author’s website to try texturing, lighting, and compositing on your own.

### Book Information

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I own the second edition of this book and greatly anticipated this third edition. I was not disappointed. I found this version to be easier to understand compared to the second edition. The chapters have been thoroughly expanded. For example, in the second version, chapter four discussed day and night lighting and global illumination. In the third, those areas are still discussed, but atmosphere and underwater lighting has been included as well as alternate methods to GI. This book is used as a textbook in many universities and these new editions come off as specific answers to specific questions; something I like very much. The chapter on character lighting has also been expanded by ten pages to include topics like spill lights and how to effectively light the iris; very welcome additions for character artists like me. This book alone is worth five stars, but taking out chapter ten and the "Getting a Job in 3D Lighting" section (both previously available in the second edition) and having readers register with peachpit.com just to have access to content we already paid for is not cool. Now yet another company will have access to our email addresses and other personal information. "Getting a Job in 3D Lighting" is valuable, but having to get it this way is a cheap marketing method I did not appreciate. This practice is not new, but other computer animation books I have purchased offer bonus content on their sites for everyone to download without requiring an account. As a big fan of this book, I hope this will not be present for any future editions.

I bought the 2nd edition of this, and even if it doesn't really feel that outdated when it comes to
methodology this 3rd edition is improved in every regard. The fact that the 2nd edition still holds its own today should say something about the knowledge and work the author puts into it. It's updated with more information about popular technologies like ptex, and it reflects increased popularity and speed of global illumination in feature films. He starts by explaining concepts of lighting, both technological and artistic. He continues going into specific methods and ways to use technology to achieve certain looks. Common errors are highlighted, good to know tricks are shown. It manages to be generic and non-software specific where it needs to be, but still points you in the right direction when it comes to specific technology which may or may not be supported by your preferred software and other methods you may want to try to get a specific look. The second edition has been recommended to me by VFX professionals, and it's with good reason. This is an improved version in every regard.

The 2nd edition was already an outstanding book. I'm just an amateur in 3D but Birn's work has been immensely helpful to clarify lot of things I had heard about but never seen in detail. The book gives a good look at the many aspects of the 3D rendering process without going too deep into technicalities: as such, it is a fitting read for beginners and intermediate users alike. I'm re-reading the 3rd edition right now, I really liked the part related to the linear workflow (gamma correction), which to be honest had always puzzled me a bit in the past, but here it is explained with good clarity. I definitely recommend this book, especially if you are just beginning your exploration into 3D. It will give you a first background of knowledge and put you on the right path.

Universe of information just in one book is amazingly and kindly provided here. Best experience reading felt so welcome on each line of there book. Check Instagram: 3designwill I will be posting my project with the lights skills learned here.

Birn does a great job of explaining digital lighting and rendering. It's not about algorithms and theory. It's about stuff that will help you take your renders to the next level -- whatever level that may be. The illustrations take over where the words leave off. You probably should have a basic understanding of digital lighting and rendering before you read this book.

I bought this with the only intention of reading it for class and instead found a lovely book that taught me things I notice all the time. 3D lighting is designed to truly mimic the real world, his book lays out all the things to look for and makes it so easy to understand.
If only all the documentation for 3D software were written like this clear and concise book. I don’t know why but the books I’ve read on 3D tend to leave me more frustrated than any area of learning that I’ve undertaken. It’s a complex subject but some authors seemed determined to make it harder than it is. Not Mr. Birn. He explains not just how to do something but why. The added bonus is that the information is platform agnostic. He seems to cover a lot of the different terms software companies use to describe the same processes and he candidly assesses their value in the finished work. There a plenty of clear color renderings that show the subtle differences that are the difference between good and great. Worth every penny.


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